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NEWS IN BRIEF

Danes win Nato order

THE Danish electronics firm, Christian Rosing, has won an order worth more than £12 million from Nato to equip Cimpus, the Computer Assisted Message Processing System. The order, which is the biggest computer export contract ever won by a Danish company, includes at least 12 Christian Rosing CR 80 computers. Deliveries will start in the middle of next year. Cimps will enable telgrams to be transmitted between Nato member countries under high security.

NCR installation

NCR is installing shared-logic word processing and electronic mail in its two London offices with the purchase of a Unicomp system for each building from Lingua. Communications links are planned not only between the two Unicomp but also with an NCR 8585MP mainframe which holds a customer database.

Union merger

MEMBERS of the 3,000-strong United Kingdom Association of Professional Engineers have voted to merge with the Electrical and Engineering Staffs Association, a section of Frank Chapple's Electrical, Electronic, Telecommunications and Plumbing Union.

£1m Spanish order

THE Spanish associate company of ICL, Standard Electronica, has given ICL its biggest order yet in Spain. Worth £1.2 million, it is for eight ICL System Ten 220s, 107 9601 factory data collection terminals and 33 9605 time recording terminals.

NASA wants '40 times faster' supercomputer

A SUPERCOMPUTER with a performance of 1,000 million floating point operations per second, about 40 times greater than any existing supercomputer, could be a reality by the mid-1980s.

NASA in the US wants such a system for wind tunnel simulation in its Ames Research Centre at Palo Alto, California, and Control Data and Burroughs have carried out studies into the possible architecture of the machine.

Control Data's study suggested the use of a single-processor machine with three levels of memory. There would be a main memory with an access time of 40 nanoseconds, a bandwidth of 258,000 million bits per second and a capacity of up to eight megawords.

each word being 64 bits.

An intermediate memory would have a 120-nanosecond access time, a 21,000-million-bits-per-second bandwidth and a capacity of up to 32 megawords. The third level would consist of back-up storage with a 2,000-million-bits bandwidth and up to 128 megawords of capacity.

Burroughs outlined a supercomputer with 512 independently operating conventional Fortran-oriented processors. Each would be able to execute 3.5 million floating point operations per second (flops) and would have its own 32,884 words of memory.

In addition, all the processors would share a main memory with a capacity of about 34 megawords. The Burroughs machine would

also have a supporting processor to run the operating system.

Both companies would use emitter coupled logic in their central processors. Another supercomputer manufacturer, Cray Research, is understood to be interested only in offering an existing machine rather than putting a great deal of money into developing a new computer especially for NASA.

But Control Data believes that the technology developed for the NASA supercomputer could be applied commercially. NASA is expected to ask for proposals on the machine within the next three months and hopes to be able to have it installed and running by the mid-1980s.

RAM to replace rotating memory

A MAJOR step towards the replacement of rotating memory by intermediate storage based on solid-state random access memory chips has been made by Intel, which is to start deliveries in the next six months of a memory system based on 16K RAMs with a capacity of up to 72 megabytes.

Called Fast 3805, it will be offered as a direct alternative to the IBM 2305 fixed-head disc drive and is expected to improve the overall performance of an IBM system by up to 30%.

Storage Technology already has a solid-state alternative to the 2305 called the 4305 which employs 64K charge coupled devices, but the company has decided to go over to using 16K RAMs in the 4305 because of the serious worldwide shortage of charge coupled devices.

Fairchild is the only volume source now of CCDs and a Fairchild spokesman admitted that all its customers were on allocation. He added that Fairchild planned to expand its production of 64K devices and was also continuing with its development of a 256K CCD.

A Storage Technology spokesman said his company was extremely frustrated by the

CCD shortage because it had been ordered worldwide for 450 4305s.

He pointed out that his firm still hoped to build some 4305s based on CCDs if and when it could get the devices.

Storage Technology has decided to charge the same for RAM-based 4305s as for CCD-based systems. The RAM-based systems will also be functionally identical to CCD-based 4305s which, in turn, are software-compatible with the IBM 2305 disc drive.

Storage Technology originally opted for CCDs instead of RAMs partly because it did

not anticipate that RAMs would become so cheap. Last year New York stock analyst Morgan Stanley said in a newsletter that RAMs had a much more hopeful future in 4305-type systems than CCDs.

The Fast 3805 (fast access semiconductor technique) is to be sold in the US by Intel salesmen but Intel could not say how it would be sold in Europe. Intel says that Fast will cost up to 15% more than the equivalent capacity of fixed head disc storage but offers an access time of less than one millisecond compared with five milliseconds on the IBM 2305.

Data entry for all IBM systems

A DATA entry system with local processing capability designed for remote communication with all the company's current computer lines has been introduced by IBM's General Systems Division.

Called the 5280 Distributed Data System, it comprises a range of data entry display stations and is driven by a multiple microprocessor controller which provides bi-synchronous and SNA/SDLC communication protocols.

Announced with it is a wire matrix line printer with a condensed print feature enabling computer output reports to be printed on A4 paper rather than standard full-width computer stationery.

The programmable controller

comes either built into a single or dual-display station, or as a stand-alone unit. There are also single and dual desk-top data stations, and all units support either integral or separate floppy disc units.

Memory in the intelligent displays is either 32 or 64K-bytes, while the free-standing controller offers 32K to 160K-bytes.

A Data Entry RPG enables users to write their own programs, provides access to the editing and processing functions of the 5280 and enables users to build up local files. It compiles on the 5280 controller.

The new 5225 matrix line printer runs at up to 560 lpm; the condensed print feature gives a selectable 10 or 15 characters per inch and a six- or eight-lines-per-inch print density.

A 5280 with programmable alphanumeric station, 64K-bytes of memory, two 1.2-megabyte floppy drives, 80-chips, 5258 printer and communications adaptor costs £10,260 or £21,410 a month and delivery starts in July.

200 more on Threshold

THE National Computing Centre's Threshold training scheme has been increased by 200 places through a redistribution of the Manpower Services Commission's funds. The NCC is also being assigned an additional 100 places in the initial programming course which trains people already in non-computer jobs.

Employers who send their staff on the programming course are eligible for a grant of £1,600, which pays for the course and part of the trainee's salary. Hitherto this grant has been available only through industry training boards, but now firms in sectors not covered by an ITS can get the grant through the NCC. A grant of £800 applies to the 10-week systems analysis course.

The new total of 1,200 Threshold places is to carry on for the 1980-01 year.

System Ten

ICL's US subsidiary has introduced a top-end machine which is the company's System Ten. The third model in the range is between \$35,000 and \$50,000, the same time the US market has been split into three distinct distribution systems: minicomputers and mainframe systems.

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Briefing

Joint project on robots

THE development of sensory and mechanical systems for robots is to be studied by the Industrial Innovation Centre as part of a £50,000 joint government/private industry project.

Work being carried out in the US and Japan will come under special scrutiny as the main aim of the project is to advance the development of robotic systems in the UK by learning from overseas research.

Bid for Decca

TALKS which could lead to a Rascal takeover of Decca are under way and a formal bid could come this week. Now that Decca has arranged the sale of its record business to PolyGram, Rascal is keen to acquire all the company's businesses apart from television set manufacture.

See City Comment, page 16.

Univa fire

ALTHOUGH a fire in branch sales administration at Univa's UK headquarters at Stonebridge Park, London, last Sunday put the telephone exchange out of operation, a company spokesman said that no serious damage was done and it was business as usual from Monday onwards.

No sale at BOC

REPORTS that the BOC group is planning to sell off the BOC service bureau and computer services operation have been denied by the company. A representative of all the group's activities is continuing but no conclusions have yet been reached.

'370' for \$20,000?

US SOURCES say that Intel is working on a microprocessor which includes the IBM 370 instruction set. If the project came to fruition it would enable companies to offer a desk top computer running IBM 370 software with 128K-bytes of main memory and 20 megabytes of disc for \$20,000.

Tandem rival

THE success of Tandem's multi-processor non-stop minicomputers has encouraged DEC to develop a development project to build a similar system. Tandem designed its hardware around a multiprocessing operating system, but DEC is planning to rewrite much of its software to run in multiprocessor mode, US sources say.

Selling DP to solicitors

An educational and co-ordinating body to promote the development of legal information retrieval systems in the UK has been set up under the auspices of the Law Society and the Society for Professional Services. Called the National Law Library, the group will operate online services itself but will encourage commercial suppliers to do so. The idea for the library came out of a report published last year by the Society for Computers and Law (CPL, February 15, 1979). An initial fund is now being launched, following an initial grant of £100 from the Law Society.

Co-inventor of first digital computer dies, 72

DR JOHN MAUCHLY, co-inventor with Dr J. Presper Eckert of Eniac, claimed as the world's first all-electronic digital computer, died earlier this month, aged 72.

Dr Mauchly went to Johns Hopkins University, Maryland, on a scholarship and graduated in 1932 with a PhD in physics. He became head of the Physics Department at Ursinus College, Pennsylvania, and while there his work on weather analysis showed the need for a high speed computer. To solve this problem he bought his own electronic equipment and started experimenting.

In 1941 he left Ursinus for Pennsylvania University where he met Presper Eckert and they submitted a proposal in 1942 for an electronic computer. The US Army placed a

contract for this machine for use on ballistic problems. This was Eniac — Electronic Numerical Integrator and Computer — and it was completed in 1946.

Mauchly and Eckert left the university in 1947 to set up their own company, Eckert-Mauchly Computer Corp, where they developed Binac — Binary Automatic Computer — claimed as the first computer programmed by internally stored instructions. From this machine Univac I was derived and the first was installed for the US Bureau of Census in March 1951.

Mauchly's main interest was the application of computers and he was founder and president of the Association of Computing Machinery.

The Eckert-Mauchly Corp was bought by Remington Rand in 1950 and for the next 10 years Dr Mauchly was director of Univac's Applications Research.

He left in 1959 to set up Mauchly Associates to carry on consultancy work and he extended these activities in 1967 with the establishment of a second consultancy, Dynatrend.

● In the UK, Colossus, the Bletchley Park code breaking computer, which was built by a Post Office team led by Tommy Flowers, at Dollis Hill, London, went into operation in December, 1943. The specification for this machine was devised by Professor Max Newman, but it was Flowers who decided to use thermionic valves in its construction.



Dr Mauchly

CI-HB drive to lead in Europe

PLANS are being laid in France which could lead to CI-Honeywell Bull acquiring a controlling interest in Honeywell's UK and Italian subsidiaries. The move would facilitate CI-HB's hopes of securing collaborative agreements with ICL and Siemens.

The purchase by the St-Gobain-Pont-a-Mousson industrial group of CGE's 20%

holding in Compagnie des Machines Bull is expected to lead to a major financial push behind CI-HB. CMB is the holding company for the 53% French stake in CI-HB and the managing director of St-Gobain, Roger Fauroux, is to become chairman of CMB in February. The holder of this post has hitherto been a figurehead, but Fauroux is not regarded as the kind of man who would confine himself to such a role.

Unlike CGE, St-Gobain has no interests in computers apart from its CMB holding, but has great ambitions. It wants to grow its computer interests to £1,000 million a year by 1985 (CW, November 26, 1979) and is expected to increase its stake in CMB by acquiring other companies in office automation and other computer-related fields on behalf of CI-HB.

An indication that the French government approves St-Gobain's plans for CI-HB is that Fauroux was received by President Giscard d'Estaing at the Elysee Palace last week to outline his proposals. CI-HB is about the same size as ICL but is only growing at just over half the rate of the UK company. The French Industry Ministry is believed to see two ways for it to expand: by acquisition and by moving into new territories such as UK and Italy.

A Honeywell spokesman at

BIGGEST UK MICRO SHOW

GET to grips with microcomputers at Microsystems 80, the biggest specialist micro exhibition and conference so far held in the UK. It is at the Wembley Conference Centre from January 30 to February 1. And the exhibition is free, as are the talks in your library.

Some 70 exhibitors will demonstrate their products and services on 100 stands.

The conference runs over the three days and includes sessions on developments in micro technology; putting micro to work; systems design and specification. For the manager, engineer or software specialist who is looking for an introduction to various aspects of micro technology there are also three one-day courses: How to get started with microprocessors; Microprocessors — a hands-on workshop for engineers; and Pascal: the language of micro-systems.

Lloyd's in leasing deal with ICL

LYDD'S of London will be in the computer leasing business in the US if an agreement with the leasing firm is concluded. Lloyd's will take over ICL's base of IBM 370s in return for an undisclosed sum of cash and assets from ICL.

The deal will follow Lloyd's having to find new lessors for the 370s and of having to make only more claims on Lloyd's underwriters under policies covering the residual value of the 370s when their original leases are terminated.

The claims could have amounted to \$200 million over the next two years. Lloyd's will assume responsibility for those debts under the agreement.

An ICL spokeswoman in San Francisco said that final agreement should be made by the end of February but the \$100 million suggested by some reports as the payment to Lloyd's was exaggerated.

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ICL committed to big systems

● From Page 1
About 18 months earlier, an LSI version of the 2850 is due to be announced, while the still unannounced S3, thought to be a microprogrammed machine to fit between the 2850/10 and the 2872, is likely to appear before the end of the year.

ICL is now discussing a number of possible development programmes with the Department of Industry. The company wants substantial backing, £8 to £7 million, for the development of a 128 by 128 array version of the Distributed Array Processor.

ICL believes its future plans must include marketing of a full range in the US and that only with unique products like the DAP can it make enough headway in the US.

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Sound TOPS training contributes to a company's success

SELECTING the right staff involves an element of risk for any company. When the firm is new it is even more crucial to choose suitable people to help the company in the all-important first year of trading.

So it was interesting to discover that a nine-year-old software house in Windsor is staffed by an unusual collection of ex-teachers, ex-social workers, a

biochemist, a linguist, a former British Rail clerk and a young lady whose previous occupation was working in a night club in Spain.

What's more, these people have been responsible for building up the company from scratch, and it has been their efforts and skills which have brought success and profit to the firm.

Who are they? All are the products of TOPS (programming courses) — people who have rejected one career for a totally new line of work of which they had no previous experience.

Universal CMS in Windsor started a year ago as an offshoot of Universal Film Laboratories and was set up by David Lloyd Terry Forsey, the software manager, is an ex-Burroughs man, and now all the company's clients are Burroughs customers.

A staff of 12 deals with programming, which is split into two sections working for the clothing industry, and the remainder, each division employing six people. Packages that have been written for clients in the rag trade have been the main cause of Universal CMS' success over the past year, and the Universal Clothing System package was written by TOPS people.

Unlike the usual procedure, Forsey went to TOPS to find his staff rather than the organisation approaching him. "We wanted people with good basic knowledge who could develop

with us. We took most from the CDI/TOPS courses, but some from KBS/TOPS. They have all been absolutely marvellous and we have been going back to TOPS ever since for staff."

The average age of Universal CMS is 27 and so far in-nine has left the company. In fact everyone seems to be throwing themselves wholeheartedly into the new venture.

"We don't keep a check on hours," said Forsey. "Most people work at weekends and this certainly isn't a 9 to 5 job. But being a small young company, we can afford to treat our staff well and we always make a point of taking a day off every quarter all to go water skiing or horse riding."

Not surprisingly, the mixture of various backgrounds and skills in the company has gone a long way to overcome difficulties.

"We have one girl working here who used to be an operator," explained Forsey. "She now checks all the programs before they go out and OKs them from the operators' point of view. Then we have an ex-engineer, which is useful because he can tell if the thing is actually working. This saves a lot of time and trouble at the customer end. Our ex-teacher is responsible for training new staff when they first join the firm."

Tony Parkinson joined the company in March direct from a TOPS course. Before that he had been a fork-lift truck driver, and had worked in an adventure playground in Belfast. He was not sure at first if computing was really the career he had been looking for all his life, but when he saw the TOPS ad in The Guardian he felt that it would be "a step in the right direction".

He attended the CDI/TOPS computer programming course in Guildford where the emphasis was on teach-yourself techniques. In contrast to the ICL/TOPS courses, which he has already discussed on this page, Parkinson had nine interviews as a result of the course and out of two job offers, the one with Universal CMS appealed to him most.

Since joining, Parkinson has become one of the most useful members of the company's programming team, but he is much more than a programmer. In a small firm employees play a number of roles which they would never be called upon to perform in a bigger organisation.

Forsey said that people from TOPS had been round to visit Universal CMS, to ascertain what went on in a small com-

An ex-TOPS student, Alan Bailey, at work at Universal CMS.



pany and the differences in the definition of a "programmer" between a large firm and a small software house.

The TOPS graduates at Universal CMS were systems analysts, tutors and indeed part and parcel of the entire company administration, as well as programmers. "Everyone here," said Forsey, "has been involved in customer training and support as well as programming."

The things we pride ourselves on here are quality and continuity. This means that if a customer meets one of our staff, he is more or less bound always to meet the same one. This is the sort of reliability we like to engender.

"It is rare that a programmer would arrive at the stage where he is meeting managing directors of a firm within a year of joining the business, but in a small company this can happen and it enhances an employee's career as much as it does the firm's reputation."

All work is done at the company's office at Old Bank House in Windsor, a Georgian building next door to Windsor Castle, containing two Burroughs B800s and a B80. Demonstrations are held either at company premises or at chosen Burroughs sites.

Because of the prestigious location and the impressive appearance of Old Bank House, several of the spare rooms in the premises have been furnished to accommodate senior management meetings, conferences, seminars and courses for outside customers. Rob Burbridge, who is in charge of this side of business, described the operation as very successful, "if sometimes a little like Fawley Towers," as Universal CMS also makes itself responsible for refreshments, from buffets to full banquets. The company will soon be running its own courses and eventually hopes to utilise existing staff skills for this purpose.

Forsey was provoked into telling us about Universal CMS after reading on this page a few weeks ago about the plight of TOPS students who had suffered from the prejudice and suspicion of employers.

"We went to TOPS because there are no recruitment fees to pay and in my experience it is a good way of getting soundly trained, reliable staff. We didn't want to employ any contractors when we started because they

don't have any company loyalty, and that is essential in a company as small and young as this. "Customers actually say to me 'I can't get my staff to work all weekend, how on earth can you?'"

Programmers, as we have seen from this page over the last months, have many opportunities in the world of work where they can end up in a variety of different environments and circumstances. Often these opportunities can depend very much upon their luck, location or circumstances.

People who take TOPS courses usually take a chance insofar as they cannot predict exactly what kind of situation they are going to find themselves in at the end of it all — except that they will be computer programmers.

Those who work for companies like Universal CMS are fortunate. They have not only

launched themselves on a new career but immediately been caught up in new and enterprising work where their own efforts immediately impact relevance.

From their point of view, TOPS was a good thing. They may not think so, but their employer, the possible endless, Young's sound training in programming not only enabled them to start a new career but also the advantage of several years' experience of working in unrelated backgrounds make ideal employees.

Why don't more of us take the risk and do the job that we are often better at?

by Judith Morris

SOFTWARE FILE

VM is resurrected from the grave

WHILE the 4300 series announcement from IBM clearly rehabilitated the VM/370 operating system for mid-range machines, there are now signs that the proponents of VM are going to win an even more significant victory.

Until about two years ago, VM/370 was very much a candidate for the chop among IBM operating systems, and a strong ally within IBM is still believed to be antipathetic towards it.

However, the very significant advantages of flexibility it confers, coupled with the ease of use of the associated CMS conversational monitor system, are becoming ever more apparent as the falling cost of hardware reduces the disadvantage of the overhead it imposes.

Dale Kutnick of the Yankee Group research organisation believes that when the H-series is announced, it will become clear that VM/370 and not MVS will become IBM's "superset" operating system.

Kutnick outlined his views at the C/S conference "The IBM Impact", in London last week.

"It has long been an IBM goal to merge its mainframe operating systems into one super set operating system that would simultaneously support all of the previously developed applications (regardless of their native operating system) and be

transparent to the user," said Kutnick.

"MVS was originally meant to be this 'unifying' operating system, but users of small-scale and even medium-scale 370s found MVS too complex and took too many machine cycles."

Noting that OS/VS1, DOS/VS and MVS can all be run under VM as guest operating systems, alongside the VM/CMS native mode, he believed that with extensions VM/370 could evolve into the super set operating system that IBM wants. This does not of course mean that MVS will not continue to be the IBM flagship operating system for large machines.

However, Yankee Group studies at user sites indicate that IBM is not pushing users to adopt MVS as hard as it was a couple of years ago.

Kutnick believes that there are currently about 2,000 MVS users, and 1,300 to 1,500 users who have licences for VM. But that is not necessarily a measure of usage since some sites use VM/370 very infrequently.

Enhancements already made to VM by IBM parallel those achieved by Amdahl's VM/Performance Enhancement in that they enable a production workload to be run under MVS in parallel with development or testing under VM without degrading performance unacceptably.

Amdahl to introduce further aid for VM/370 operating system

NEW software on the way from Amdahl includes an assist for the VM/370 operating system offering performance improvements comparable with those provided by IBM's Virtual Machine Assist firmware, and a second release of the company's SVS/SE Assist, which enables users to run IBM's MVS/SE on Amdahl 470s.

The new VM/SA product has been found to reduce overall CPU execution time by between 5% and 25% at test sites, the improvement depending on workload, job mix and other factors. Since VM/370 allows run concurrently in the same machine, performance variations are difficult to predict.

Amdahl stresses that the VM/SA is not a software emulation of IBM's Assist for VM, but attacks VM bottlenecks in a similar way. It reduces the number of instructions required to emulate instructions, and offers emulation routines to make maximum advantage of the Amdahl 470 architecture.

Amdahl says that VM/SA is particularly effective when used with the VM/Performance Enhancement product, VM/PE. VM/PE is a hypervisor which allows one MVS or SVS "virtual machine" to run with very little performance degradation compared with running MVS in

native mode, and is particularly useful for testing a new release of MVS while running the production workload under the previous release.

Without VM/PE, the overhead could be as much as 40% compared with running MVS in native mode, and Amdahl claims that this falls to under 10% when using VM/PE.

No UK release dates have been set for the two new products, but VM/SA is expected to be announced shortly.

In the US, the MVS/SEA release 2.0 is available this month and is for use with Release 2 of IBM's MVS/SE. MVS/SE was announced with the 303X line and consisted of firmware and software which provides a performance improvement of up to 20%. It is called Extended Facility on the 303X machines and is also available as a field-upgrade on 370/158 and 168 machines, where it is called Extended Feature. MVS/SEA from Amdahl provides counterparts of many of the extended hardware instructions which are functionally equivalent to those offered by IBM's hardware/software combination.

Amdahl claims up to 13% reduction in supervisor state execution time and up to 12% improvement in overall throughput for MVS/SEA, depending on job mix.

Measurement interface

AMDHL is offering a hardware measurement interface for users of the very latest 470V/7A, 470V/7Z and 470V/7S processors, which have 16 to 28 measurement ranges. It is designed to pre-process signals and make it possible for most commercial monitors to handle them. It is already available for the 470V/8 and will be available for the V/9 models in June.

TIM PALMER REPORTS FROM THE C/S CONFERENCE ON IBM

IBM's solution

IBM's solution to the problem of running a production workload in parallel with VM/370 without imposing an unacceptable overhead differs from the solution offered by Amdahl (see this page).

Where Amdahl effectively imposes a continuous further overhead on all other virtual machines under VM except for the one in which the production workload is running, IBM has added a feature to the VM/370 systems extension which enables the operator to shut down and bring up VM using simple commands at the console.

This means that the operating system running the production workload can be switched to run in native mode and, once the run is finished, VM can be brought up again with an initial program load in either case.

The facility is available for MVS, SVS and OS/VS1, but to do it the production operating system must run in a virtual equal real workspace so that it requires no paging.

'IMS will become a subset of System R'

WHAT is the future of IBM's IMS? How can IMS users' interests be preserved if IBM goes ahead with its plans to introduce a relational database, the so-called System R?

Dale Kutnick's view is that IMS will become a subset of the relational database, running under it.

"Since IMS is a very hierarchical database, the antithesis of a relational database, this will be difficult. It could be the reason for the power of the new 3880 disc storage control unit, launched with the 4341.

"The 3880 is a 5 mips processor built in fast emitter-coupled logic (ECL, March 1, 1979) which leads observers to believe that it will be used as a database processor in the future."

Kutnick believes that not only the relational database plus IMS, but also CICS might run in the 3880 in the future.

● Amdahl is offering an HDM Optimiser for use with IMS/VS

databases. It is designed for use during normal database reorganisation and to determine and ensure optimum placement of data in the database. Input/output requests needed for retrieval are claimed to be reduced by between 10% and 15% when it is used.

CICS link

AVAILABLE in September is an intersystem communication function from IBM which enables IMS/VS and CICS/VS systems to communicate directly with each other, both in one processor and in different SNA-connected processors. It enables a terminal on a CICS system to interrogate and update remote IMS files and send messages to terminals on the remote system. Terminals on an IMS system can equally be used to schedule transactions on a CICS system.

Hoskyns Modular Application Systems (MAS), are a total systems approach to the information and control requirements of organisations. During the past ten years MAS elements have been built for most applications in industry, finance and commerce. Over 1500 MAS elements have been installed worldwide. The table below gives an overview of some of the major sectors covered by MAS and other Hoskyns standard systems.

Industry or Commercial Sector	Computer		Hoskyns Modular Application Systems						
	Mainframe	Mini	Micro	MAS-I	MAS-II	MAS-M	MAS-H	KIES	Special Sys. Sys.
Accounting	✓	✓	✓	✓	✓	✓	✓	✓	✓
Banking	✓	✓	✓	✓	✓	✓	✓	✓	✓
Distribution	✓	✓	✓	✓	✓	✓	✓	✓	✓
Factories	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hotels	✓	✓	✓	✓	✓	✓	✓	✓	✓
Housing Associations	✓	✓	✓	✓	✓	✓	✓	✓	✓
Insurance	✓	✓	✓	✓	✓	✓	✓	✓	✓
Leasing and Hire Purchase	✓	✓	✓	✓	✓	✓	✓	✓	✓
Manufacturing	✓	✓	✓	✓	✓	✓	✓	✓	✓
Retailing	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shipping	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vehicle Control Hire and Fleet Control	✓	✓	✓	✓	✓	✓	✓	✓	✓

MAS run on a wide variety of computers, including the major manufacturers shown here.

IBM ICL DEC HP IBM TI If you would like further information on any MAS, please contact Brindley Reynaud at Farringdon Road.

hoskyns

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OP SPOT

Big increases in your wages, but...

HERE'S something which might bring a smile to your face. Last spring, and autumn the salary levels paid to operations staff went up by more, in percentage terms, than those of anyone else in the industry.

But don't smile too broadly. As you know only too well, programmers and analysts still pull considerably higher salaries than you.

I say this after reading a survey analysing wages and salaries throughout the country. It is from Reward Regional Surveys, and is based on information submitted by companies belonging to 12 regional "clubs".

The survey, the seventh in a regular six monthly series, states that the salary paid to the average operator and senior operator rose by 13.3% and 8.1%, respectively. In money terms, that means an extra £411 for operators and £322 for senior operators.

By comparison, the salary of the average programmer went up by £203, or 4.4%, while the analyst's rose by £440, or 7.8%.

The survey indicates that national average salary for operators is a princely £3,500, while senior operators now earn £4,312.

Needless to say, programmers and analysts fare considerably better: they get £4,800 and £6,100 per annum in each case.

Your average manager — the survey doesn't specify DP or operations manager — earns some £8,000, which includes a spring/autumn rise of £617, or 8.4%.

Statistics are also analysed from a regional viewpoint. As you might expect, we find that the best paid operators and senior operators are in the Central London area, with £4,224 and £4,050 per annum.

Staff in the Nottingham and Derby areas — £2,886 a year for operators and £3,128 for senior operators — are the lowest paid members of the operations fraternity.

According to the survey, salaries also vary with the nature of the company's business. At companies in the clinical industry the operators get £3,525, a fair bit more than the £3,148 paid in staff in the service industries. Worth remembering if you're thinking of a move.

Looking outside the computer industry, we see that a telegraph operator gets £3,085 on average while a clerk gets £2,850. The national average salary for a draughtsman is £4,356.

What we really need is a breakdown of statistics into categories relating to the size and type of machine operated — IIM, ICL, Honeywell etc — but that is beyond the scope of such a survey.

Figures such as these can be misleading, but one fact stands out like a beacon — operators are still very much the poor

Eyes on replies on CSA talks with Inland Revenue

THE Computing Services Association is engaged in talks with the Inland Revenue for one main purpose — to look after the interests of its members.

That message comes across loud and clear in a letter from Doug Eysen, who is director general of the CSA.

Responding to an Op Spot report about a meeting held on contract operating by contract staff agency Co-operators, (CW, November 28, 1979), he comments:

"The 'high level talks' be-

relations of the computer industry.

I'm sure most programmers do a good job, but then so do the majority of operators. Anyway, I would like to hear your views on the subject of salaries.

Don't you think it's all a bit unfair? I do.

*National Analysis of Salaries and Wages, Reward Regional Surveys Ltd, 1 Mill Street, Stone, Staffs.

'Managers must also look after their own career paths'

"WHEN you wrote about the operations manager you didn't mention that he has to look after his own interests. He's got his own career path to follow as well as looking after the operators."

So an operator replies to a recent Op Spot (CW, January 10) in which we considered the role of the operations manager, and looked at some of the ways in which he should look after his staff.

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I agree that the operations manager should look after his own interests, and he usually does, otherwise he wouldn't have the position.

But by caring about the operators — arranging courses and other forms of training, and carrying out staff appraisals regularly — he is, in effect,



Contracting can be a good way of making a living

SIGN on for several agencies, sound them out before your current contract ends — and you're operating is not too bad a way of making a living.

This is the view of a contract operator for years who has "no intention of going back to permanent work, unless the demand for contractors dries up."

Responding to comments by an ex-employee who was rather critical both of contract operators and the agencies (Op Spot, December 20), he said: "The only regret I have is that I didn't start contracting much sooner. I was in a rat race over a year at my old installation and just realised it."

That's not to say that contractors don't have their problems, as he went on to say: "Sometimes I feel like I'm being used, but there are several of them, and one is higher rate than the others."

That happens because agencies tend to pay better to the operators who have been on their books the longest — reward for loyalty, he says.

Agencies are also sometimes slow in paying out, but he says he's got it all now, but he's not sure he'll stay in the industry while they blame it on the computer, believe it or not.

Then, of course, there's the lack of security. "You have a six-month or so long contract and then you're out. If the client doesn't need you any more, goodbye. That's what it's about."

Ideally, staff should be given time off in lieu to attend courses during their leisure hours. But then again, at some installations the operators get so little training that they would gladly give up their weekend to go on courses.

Looking after his own interests. The part played by the shift leaders or, in the case of our friend's site, by shift managers, is of considerable importance and should not be underestimated. They must bring the best operators to the attention of the manager. In my experience some shift leaders do this admirably while others do it not at all.

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But by caring about the operators — arranging courses and other forms of training, and carrying out staff appraisals regularly — he is, in effect,

looking after his own interests.

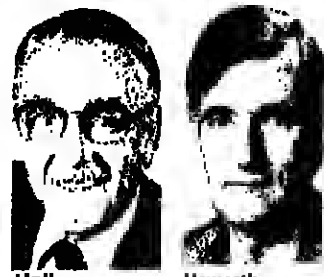
The part played by the shift leaders

PEOPLE and EVENTS

Short is youngest master

NIGEL SHORT, 14, became the youngest international master during the ICL Hastings chess tournament when he won 8 points. Chess players qualify for this on winning 7½ points. John Nunn, a 24-year-old mathematics lecturer from Oxford, tied for the £1,000 first prize with Ulf Andersson of Sweden. It was the first British chess victory at Hastings since 1954. Short tied for fifth place after drawing in 12 moves against the Russian grand master Mikheyev.

Peter Hinworth, formerly sales director, has now become managing director of X-Data of Slough. He was formerly European sales manager with Alnorox. Hinworth succeeded as sales director by Tom Blaszkowicz who joined as sales manager last year and who has now been appointed to the board.



Hall

Bill Hall has been made managing director of Q-Pac Services, where he will report to Dave Teran who is an the international board of Q-Pac responsible for the UK operation. Hall was formerly managing director of ICL India, and other positions he has held with ICL include marketing manager for the 2903 in South Africa, and general management of Scotland, North-East, North-West and the Midlands. Recently he has been responsible for forming ICL's new company in Malawi.

Maureen Dawson has joined Plessey Microsystems as a sales engineer for standard products. She previously worked for IIT Electronic Systems as a sales engineer in the microprocessor department.

European Services Association officers

THREE new officers have been appointed by ECSA, the European Computing Services Association. They are to take up a two-year term from this month.

ECSA president is Knud Frederiksen of Denmark, the managing director of JDC Data. The newly-elected vice-president is Jose Diaz Salanova of Spain, managing director of Centra de Calculo de Sabadel. The managing director of ORDA B, Tor Mutton of Belgium, becomes ECSA treasurer and secretary.

All three new officers have been council members for several years. Frederiksen and Mutton were both founder members of ECSA which this year celebrates its fifth anniversary.

Speaking of their plans for the period ahead, the new officers issued a statement which said, "There is an on-going tendency to restrict the free flow of data

over the borders, and we see it as one of our most important duties to present the industry points of view on the impact of these restrictions on our industry."

John Armstrong and Martin Vandersteen have both been elected to the council of the Management Consultants Association, as chairman and vice-chairman respectively for 1980. Armstrong is managing director of Urwick Orr and Vandersteen is a partner in charge of the management consultancy division of Arthur Andersen.

Ray Werner, formerly sales manager for Quic Corp's Western region, has become vice-president of sales at Vector Graphic.

John Pallin has become UK sales manager for industrial products with Zilog (UK). He has formerly worked for Celsis and Signetics.



Harper

Top man at consultancy

SPICER and Pegler Management Consultants have announced the appointment of Richard Waller as manager in charge of microcomputer consulting activities. He previously worked for CAP Micro Products where he was involved in the development of Microcobol packages and will continue his involvement with the Department of Industry microcomputer awareness programme. Waller was the first chairman of the BCS professional panel from 1974-1977.

Peter Harper has been appointed sales manager for the EDP division of BASF UK. He joined the company in 1978 as a magnetic media and peripheral hardware sales representative for the Midlands, previously working for Nashua as an area sales manager.

John Toomey, who joined Jovian Systems as a senior programmer has been appointed to the board as a director with special responsibility for programming and operations.

Ron Proctor has become branch manager in Manchester for Univac. He was formerly a sales representative. Dick Gunning has joined the company from Burroughs and has been appointed to create a new branch in London.

DIARY

JANUARY 30
Natural language translation. Heriot-Watt University, Edinburgh. 17.30.

FEBRUARY 4
Meeting. BCS Fortran specialist group. Heriot-Watt University, Edinburgh. 10.45. Tel: 0533 554455 ext 185.

The use of microcomputers in electricity distribution. BCS East Anglia branch. Russell Road, Ipswich. 18.00.

Visit to Open University. BCS Bedfordshire branch. Milton Keynes. Apply via secretary. Tel: 01-837 0471.

FEBRUARY 8
A look at the new Ansl Cobol standards. BCS North West London branch. Railway Hotel, 380 Oldfield Lane, Greenford, Middlesex. 18.30.

FEBRUARY 7
Visit to Lloyds. BCS Kent branch. Chatham. 18.30.

The future of SCS and presidential visit. SCS Chester and North Wales branch. Half-Way House, Connah's Quay, Clwyd. 19.30.

FEBRUARY 12
Map-making by computer. BCS Craydon branch. Fairfield Hall, Craydon. 18.15.

Voice response systems. SCS Harlow sub-branch. Saxon Inn, Harlow. 19.30.

Use of computers in MR weather forecasting. SCS Newcastle branch. Barras Bridge Refectory, University of Newcastle, Newcastle. 19.00.

FEBRUARY 13
Technical locations. BCS Bristol branch. St Vincent Rocks Hotel, Clifton, Bristol. 18.15.

Computers in newspapers. BCS North London branch. West Lodge Park Hotel, Cuckfield. 18.45.

CAD at Ford. BCS Sussex branch. County Hall, Lewes. 19.30.

Computers in the 80s. BCS Hampshire branch. Hull College of Higher Education, Hull. 18.30.

FEBRUARY 14
Have computers any place in the doctor's surgery? ICS Oxford sub-branch. Staff Canteen Lounge, Oxford Polytechnic, Oxford. 19.45.

MARCH 27-29
The changing balance of man, technology, IDPM. Bournemouth. Details: 01-684 0171.

New post at ICL France

DEMONSTRATING growing confidence in the potential of the French market, ICL France has created a new post - director, large systems - and appointed Philippe Ducez, former head of computing at L'Oréal as the first incumbent.

Jeremy Brittain-Long has become marketing manager with Univac. He was formerly managing a far manufacturing systems a position which he has held since the inception of the BSM division in 1978. Miss Naylor has been appointed technical and customer education manager. He used to be a project manager in the technical operations department.

Chris Long has joined ICL as manager of computer systems analysis, a new post which will report to Paul McKee, ICL computer consultant. He is an ITN from the BBC. At ITN he will be concerned with the application of computer systems generally throughout the company with special responsibility for the development of computer graphics.

Colin Parlett has been appointed an applications consultant with Tymshare UK. He was previously a sales representative with Burroughs, a mechanical engineering graduate, John Lacey, has joined the company as a training systems consultant and Nick Ford has joined in a similar position. Roy Harris, who has spent years with UCC, has now joined Tymshare as an applications programmer.

Jim Skipper has joined Mochlery Computer territory manager for the shire. He has been in sales for two years with Control Data.

Liveware File

by Dr

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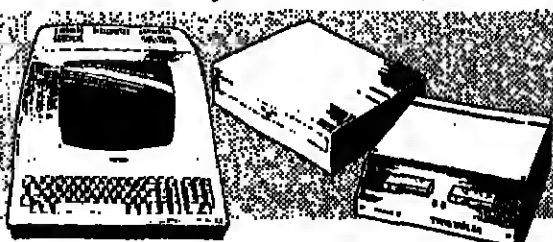
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MICRO NEWS



Prestel for Apples

THE Prestel interface package developed by Owl Computers for the Apple II has been taken on by Milesense, Apple's master distributor in the UK. New being sold under the banner of Apple, the £695 package allows an Apple computer to be used both as a direct Prestel terminal, and as a remote terminal capable of storing and executing downloaded data and programs.

It was first demonstrated at the Personal Computer World Show in London last year on the stand of Apple dealer Ken Computers (CW, November 8, 1979).

The new member of the HP3000 family arrives for less than £33,000.*

The new arrival is the Series 30, although it comes with a small price tag, it's a full-function general purpose HP3000 computer.

It has the power to perform transaction and batch processing, program development, and communications in other HP3000 or an IBM mainframe—at the same time. You can use it as a stand-alone terminal or in a network to monitor what's happening on other systems.

Thanks to our Silicon-On-Sapphire (SOS) technology, you can get all this in a handsome, compact package that has an easy, one-step start-up and a starting price of just £32,277* (You won't have a long wait for delivery either).

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All HP 3000 models use the same operating system, the same five languages, the same data base management software, and have the same powerful networking capabilities. So you can write a program on your central Series III and run it on your Series 30 at an office across the country. Without having to write new software code.

The operating system for the HP 3000 is called MPE III (Multiprogramming Executive)—an enhanced version of the same operating system that ran the first HP 3000 back in 1974. MPE supports RPG, COBOL, SPL, BASIC and FORTRAN. What's more, files created in one language can be accessed by applications written in any of the other languages.

We also kept an eye on the future when we designed the HP 3000. Expansion paths protect your investment by allowing the computer to grow right along with you. And you can continue to use the same programs you've always been using.

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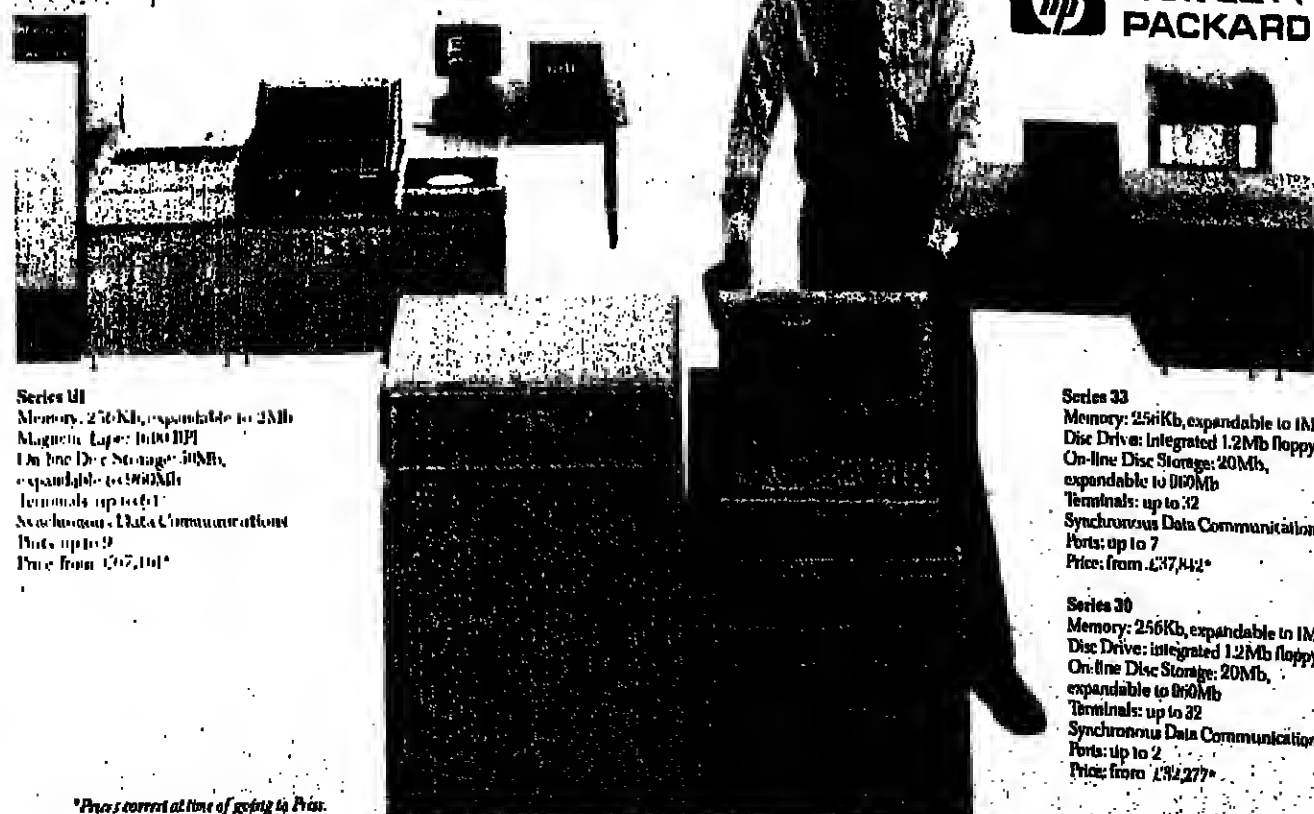
software, lets you access a remote data base as easily as if it were right in front of you. (For communications with your IBM mainframe, we have remote job entry software.)

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On-line Disc Storage: 20Mb,
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Terminals: up to 32
Synchronous Data Communications
Ports: up to 7
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Series 30
Memory: 256Kb, expandable to 1Mb
Disc Drive: integrated 1.2Mb floppy
On-line Disc Storage: 20Mb,
expandable to 100Mb
Terminals: up to 32
Synchronous Data Communications
Ports: up to 2
Price: from £32,277*

*Price correct at time of going to press.

by Martin Banks

Flag-waving exercise at the TV-Mex exhibition

A CLASSIC example of the inconsequential nature of many micro applications which have developed as a direct result of the all-pervasiveness of the device could be seen last week at TV-Mex, a subsidiary exhibition to the domestic electrical appliances show, IDEA, held at the National Exhibition Centre in Birmingham.

Dedicated to the application of the micro in relation to the TV, the show turns at the show had nothing to do with the subject.

Market leaders in a headcount of the stands were two suppliers of "software" for the burgeoning video cassette market. A non-stop display on a TV was a far more successful draw than scantily-clad ladies lying under solariums in the main hall of IDEA — and they were real.

Isn't technology wonderful? Same exhibitors were disappointed at the non-appearance of a large contingent of companies from America. Half the exhibition hall was boarded-off and vacant because they had failed to show.

For those that were there, the visitors were fairly thin on the ground, as the overall event is geared very much to the high street home appliances retailer.

Among those that found the show useful was Texas Instruments, giving another UK pre-launch showing of its 98/4 home computer.

Mike Lunch, the company's UK product manager for the system, felt the show had been successful for attracting and meeting potential dealers, for which the company has a total target of 20 in this country. Initially, Texas is working through the specialist micro dealers like Personal Computers and HB Computers, but its long-term aim is to sell the 98/4 through high street white goods and hi-fi dealers.

It should be possible, by the time the system is officially launched next month, to buy specially modified PAL-standard TV sets instead of NTSC-standard video monitors to use with the system, and Lunch expects the whole package to be retailing for about £1,000.

Though he does not see the system as the basis of a small business system, a thermal printer is expected in April, and a 80K-byte single sided, single density floppy disc drive in May. There have also been hints from the US that terminal interface modules, to be used in the same

way as the 98/4's program "command" modules, will be available towards the end of the year. These will allow the 98/4 to interface with various standard communications protocols.

Another recent entrant to the small computer scene, Sharp, was also in attendance, though UK systems manager Paul Streeter saw the company's presence mainly as a flag-waving exercise.

He did however hint that, in the middle of the year, Sharp would be coming on stream with a range of add-on hardware: software, such as floppy drives, a range of business applications packages and version of Pascal that will mark the start of a straightening of the small business market in particular the dominance of Commodore there.

NCC packages list

AS PART of a research project into the scope and availability of high-level languages and applications packages for microcomputer systems, a team at the National Computing Centre has developed one of the first comprehensive listings of software packages that are available and from whom.

The list has developed from a questionnaire sent by the team to everybody in the country who might be offering applications packages for micros and it now contains details of some 100 suppliers.

According to one of the NCC team, Lyndon Morgan, the list is unlikely to be formally published, though information from it will be available to interested parties via the Centre's Information Service, which will have access to the list.

"The information we gathered

was only relevant to the packages we had in hand," Morgan says, "so it is by no means complete." Another factor against publishing is that the microbusiness moves so rapidly and it would be out of date by the time it was available.

The questionnaire asked for the type of package, cost, the level of support available, and the documentation provided. An interesting side to this was that the attempted to use a microcomputer database package to access the information.

Morgan's comment on the package, an £85 Cromemco database system for running a 22D system, sums up team's views on most packages available.

"It was very impressive for the price but it was not that expensive," he said.

Alive and well in Chicago

A VERSION of the Pot computer fitted with a 12-inch screen offering 80 characters has been seen alive in Chicago, at the Winter Consumer Electronic Show.

Expected to be available in this country by the second quarter of this year (Micro News, January 3), it is likely to form the main stem of the company's continued thrust into the

small business systems market where such a screen size is virtually a necessity.

Next month, the company stages its first exhibition dedicated to software.

To be held at the Sheraton Hotel, near London's Heathrow Airport on February 13 and 14, it will be aimed at displaying a full range of company applications packages to dealers.

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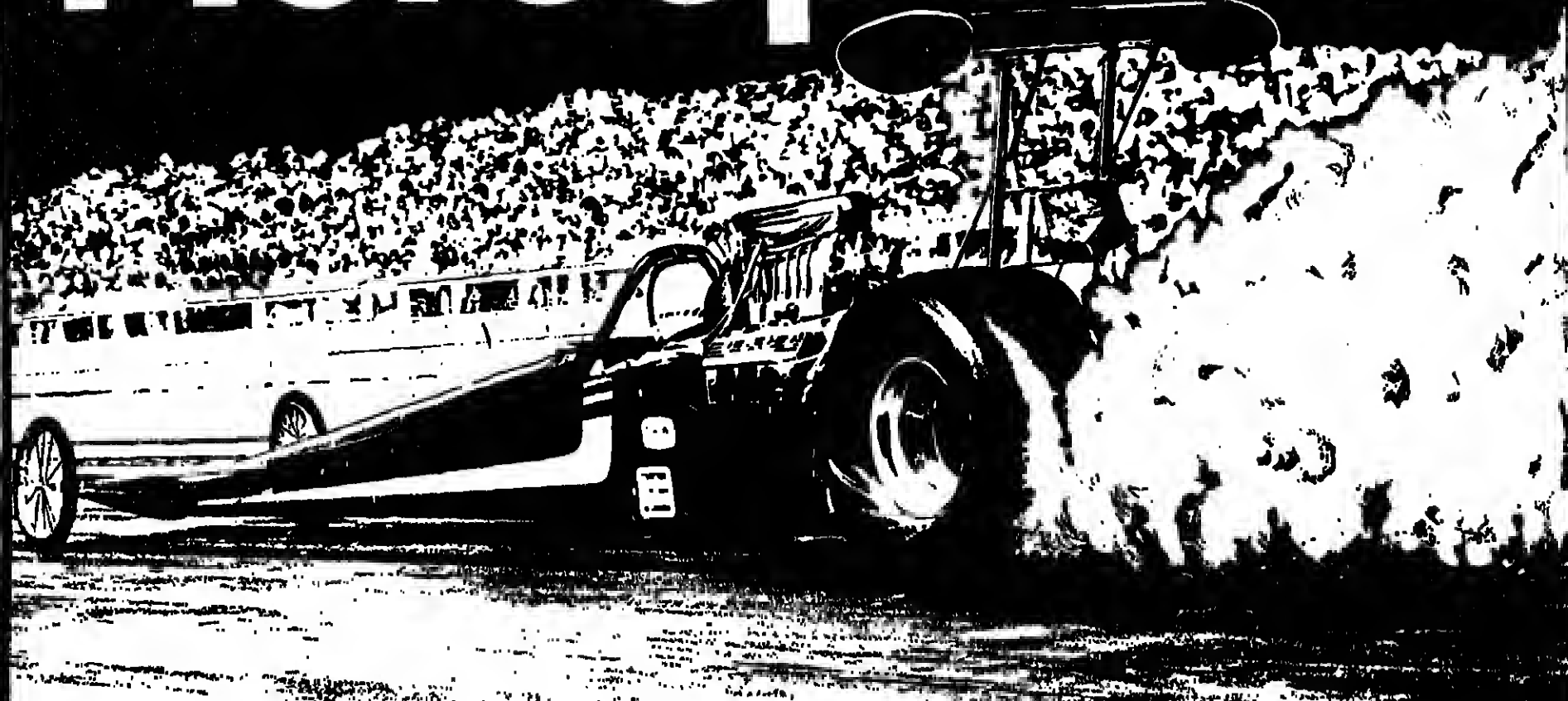
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The Wellcome Foundation are a worldwide organisation concerned with the research, development, manufacture, sales and distribution of products to promote the health and hygiene of both man and animals. It is a company totally committed to the importance of the D.P. function and where the operational spread of computer activity is country-wide. Technological advancement is vital in retaining job interest and expansion in computer operations is paramount to career development. The current configuration comprises twin IBM 3031's operating under VM/370 and OS/VS1. Communications equipment includes local and remote VDU's, typewriter terminals and RJE facilities spread throughout the U.K. One machine is dedicated to providing IMS scheduled services, while the other provides timesharing facilities under VM/CMS.

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SHIFT MANAGER—starting salary £8,000—£10,000 inc.

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SENIOR OPERATORS—starting salary £6,000—£7,000 inc.

Applicants should have at least two years' IBM 370 experience and a good knowledge of OS/VS1 operating systems. Familiarity with IMS and VM/370 would be a distinct advantage. Also, maturity and reliability will be considered as essential qualities for these positions.

OPERATORS—starting salary £5,000—£6,000 inc.

These opportunities are ideal for those who have at least one year's involvement with OS/VS1 in a large IBM 370 environment. It will probably be your first career move in the industry and will present an outstanding prospect in terms of job satisfaction and technological development.

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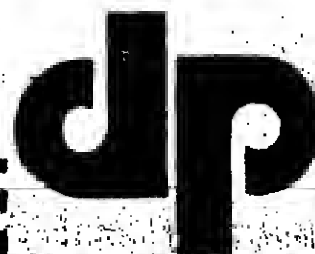
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Contact: Mike Creamer

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Appointees will be expected to spend one or two months in the U.K. on a familiarisation course followed by German based assignments for about 18 months. Thereafter, projects could be elsewhere in Europe/World or back in the U.K.

Contact: Mike Creamer

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Career prospects are superb—leading to Projects Management and above. European wide since the company has a presence in several Continental countries. Full relocation and good, large company benefits are available.

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Contact: Andy Wright

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Applicants should have a professional attitude and sound technical ability combined with experience of commercial and manufacturing systems.

Contact: Bev Stevens

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to \$8,000

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Contact: Margaret Stevens

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Contact: Bernard Kiernan

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JBA

Analyst/Programmers

(2+ years experience) to work on
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London Area

Start circa £7,500 - £9,500

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Positions have become available for Analyst/Programmers - or Programmers with some good design experience - to join these teams. Experience sought is non-specific in terms of languages or machines but candidates must have worked in an environment in which at least one of the above types of systems had been developed - and should possess a thorough understanding of the system. In general terms, IBM, UNIVAC, HONEYWELL or ICL 2900 experience is useful together with ASSEMBLER, COBOL or PL1.

These are excellent career opportunities with a company which is growing in the UK at a tremendous rate, and which can offer a wide range of opportunities on the Continent at a later date - if so desired by individual employees.

Benefits package includes:- Interest-free season ticket loans; Luncheon vouchers; BUPA; Disability and Accident Insurance; Pension Scheme; Car Scheme.

Please contact either:-

Peter Murley on 01-437 3043
or Andy Wright on 01-439 9311

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Applicants should be educated to degree standard and have experience of both hardware and software development. The successful applicants will be involved in products with real potential and challenging customer projects.

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A Honeywell Level 66 DPM4 with 2 megabytes of main memory and using Time Sharing, Transaction Processing and On-line Query and Reporting Facilities is on order for delivery in July. DMV Data Management System, IDS II Data Base System and Cobol 74 will be used. A front end Network Processor will control terminals situated throughout the Borough.

Applications are accordingly invited for the following new posts in the Chief Executive's Department (Central Support Group):-

SYSTEMS DEVELOPMENT MANAGER	£11,000
PROJECT LEADERS	
SYSTEMS ANALYSTS	
SENIOR PROGRAMMERS	£8,500-£8,500
PROGRAMMERS	

The successful applicants will be appointed to appropriate National Joint Council salary scales which in the case of the Systems Development Manager will be within Principal Officer Range 2 and the remaining posts from AP4 to Principal Officer Range 1 (plus London Weighting allowance and Competency award pending). For Programmers a good working knowledge of COBOL is preferred but COBOL training will be given to Programme experienced in other languages.

Relocation and removal expenses may be considered. Generous holidays. Offices in Romford Town Centre, close to main line Railway Station, within easy reach of the Essex countryside.

Application forms and further particulars from Computer Project Team, Town Hall, Romford, Essex. Tel: Romford 46040 Ext. 389/9.



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Please write or telephone for an application form to: Miss Loraine Theobald, Xenotron Ltd., Vinces Road, Diss, Norfolk IP22 3HH. Telephone (0379) 4811/2.

UNIVERSITY OF STIRLING DEPARTMENT OF COMPUTING SCIENCE MICROPROCESSOR FACILITY

Applications are invited for the post of LECTURER

Candidates for the post should have experience in microprocessor applications and preferably knowledge of electronics and microprocessor hardware. The successful candidate will be required to assist in the building of a microprocessor-based system. The appointment will commence on or before the 1st September 1980. Salary scale £4,786-£9,881 (under review).

Applications with the names of three referees should be submitted by 15th February to the Secretary, University of Stirling, Stirling, from whom further particulars may be obtained.

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We offer generous annual leave, a subsidised staff restaurant and are close to trains, buses and buses. Assistance with relocation expense, if appropriate will be provided.

As part of Lambeth's Equal Opportunities Policy, applications are welcome from people regardless of disability, marital status, race or sex.

Application forms available from the Recruitment Section, Directorate of Management Services, London Borough of Lambeth, 18 Bristol Hill, London SW2. Telephone: 01-274 7722 Ext. 3008. Closing date 28th February 1980.

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As these positions will require a considerable amount of user contact at all levels, successful candidates must be able to communicate well.

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FORTRAN would be a distinct advantage. If you would like more details, please phone Ray Miles on 081-969 5535; reverse charges or write to him at: General Site Services Ltd, Nelson House, Park Road, Timperley, Altrincham WA14 5AB.

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 Jane Griffiths, Personnel Group, Rutherford & Appleton Laboratories, Chilton, Didcot, OXON OX11 0QX quoting Ref: VN 883 or phone (0235) 21900 Ext. 510.
 Closing date: February 8th 1980.

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Resumes, which will be acknowledged and forwarded to our client unless a covering letter gives contrary instructions, to E. H. Simpson, Executive Selection Division, Ref. SC638 at the address below.

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To arrange an informal interview, please telephone Guildford 71 201, extension 470. Letters of application, in the form of a detailed curriculum vitae, should be addressed to the Data Processing Officer, Computing Unit, University of Sussex, Guildford, Surrey, GU1 2EX.

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CHIEF SYSTEMS ANALYST

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THE OPPORTUNITIES: Possibilities for advancement are excellent. Significant success in the current post, coupled with the training and development we can provide should result in rapid progression for the individual with ambition.

THE REWARDS: Salary around £11,000. Six weeks' holiday. Pension scheme. Company medical service. Very good sickness benefit.

Candidates should apply in writing giving details of age, experience and qualifications to Box No. 1074, Computer Weekly, Dorset House, Stamford Street, London SE1.

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**SYSTEMS ANALYST/
 PROGRAMMER**

The Computer Centre provides a wide range of computing and data processing services on POP11/70 and ICL2804 equipment. As a result of an expansion of its activities, the Centre is seeking a Systems Analyst/Programmer to fill a permanent post.

The successful candidate will advise and assist academic and other departments in identifying their computing requirements and will develop and support the software to meet them. Candidates should be competent Analyst/Programmers, and engineering applications. Experience in an academic computer centre, while desirable, is less important than the ability to handle diverse assignments effectively and with minimum supervision.

SALARY SCALE: £8220-£7135 p.a.

Application forms, available from the Personnel Office, The National Institute of Higher Education, Limerick, should be completed and returned by 15 February, 1980.

UNIST
**LECTURER
 IN SYSTEMS
 ANALYSIS**

REF. COM/216/BC. The Department of Computing is an expanding department with one of the largest Honours Schools in the country. The graduate output is highly sought after by industry. The Department is reasonably well equipped, having two MICRO-ONE computers, eight POP11/70 computers and one T1/34 for research. The Department also makes good use of the Regional Centre's large CDC 7600 and CR6 72 computers.

A vacancy exists for a lecturer in Systems Analysis and Data Processing. Applicants should have had previous professional experience in an appropriate environment, preferably teaching experience (not essential).

The salary scale is £4320-£8925 per annum (subject to review).
 Requests for application forms and other particulars should be sent to the Department of Computing, University of Ulster, Newtownabbey, Co. Antrim, BT37 0YU, by the 6 February, 1980.

Recruitment



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City of London, Salaries: to £10K

A multi-national Insurance & Broking Institution with substantial world-wide assets is prepared to exceed the current market rate for top calibre personnel to work within its expanding Management Services Department based in "The Square Mile". The U.K. Headquarters has large IBM mainframes operating under MVS. Currently, the Company is seeking Applications Programmers, Systems Designers and Financial Analysts. Programmers should have a minimum of one year's COBOL or PL/I experience preferably in an on-line and Data Base environment. Knowledge of CICS, ENVRON, SHADOW, IMS, TOTAL or ADABAS will certainly reflect in the salaries offered. Successful candidates will be engaged in projects at the early stages of development. Designers and Analysts will have been involved in feasibility studies, project control, implementation and live running. The Company offers an extensive range of social and medical benefits after a brief qualifying period of employment. All interviews will be held on the Company's premises during early February. Ref: 24/1/D

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Interviews to be held in London or Birmingham.

NAME	ADDRESS	TELEPHONE
Mr. Simon Lever	10, The Quadrant, Birmingham B2 4JH	021-236 3781
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Mr. Robert Brown	25, The Quadrant, Birmingham B2 4JH	021-236 3781
Mr. Michael White	30, The Quadrant, Birmingham B2 4JH	021-236 3781
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Mr. William Phillips	70, The Quadrant, Birmingham B2 4JH	021-236 3781
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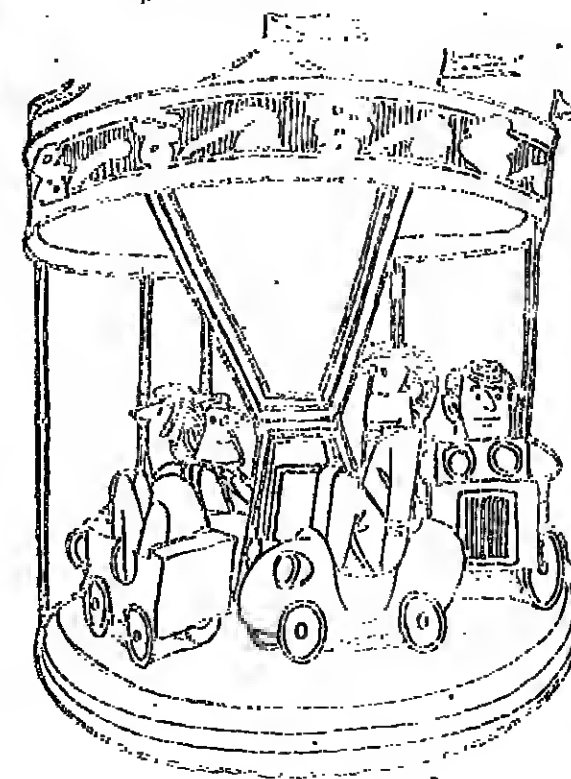
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A new position exists with the Group Management Services Department of Crane Fruehauf, Europe's leading manufacturer of trailers and ancillary equipment for the road transport industry. Following the recent installation of a Honeywell Level 643 (182K) with mass storage to run on-line and batch jobs, we are seeking to recruit a COBOL PROGRAMMER.

The vacancy is for an experienced Programmer, as the duties will involve a wide range of commercial applications, including the redesign of systems currently running on Burroughs as well as on-line development of important new applications. Reporting directly to the Management Services Manager you will join the central team (primarily systems related) at the very beginning of a major in-house computer development programme. A challenging position offering wide job variety and good career opportunities.

The position is based in Dereham, an attractive Norfolk market town offering reasonably priced housing, in close proximity to Norwich, the coast and the Broads. In addition to the above salary, other benefits include a twice yearly productivity bonus and, where appropriate, realistic assistance with relocation costs.

Please write giving full details or telephone for an application form to:

E.V. O'Sullivan, Assistant Group Personnel Manager, Crane Fruehauf Ltd., Norwich Road, Dereham, Norfolk. Telephone: Dereham (0262) 3934.



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AIR WINGATE LIMITED

PROGRAMMER/ANALYST CHALLENGING DEVELOPMENT PROGRAMME

Air Wingate Limited is a fast moving, major international firm of air freight forwarders based in Ascot with branches at 12 key locations around the U.K. Air Wingate is embarking on an ambitious development plan to provide on-line computer facilities on Ventra Datapoint 6650 equipment, initially in their Head Office in Ascot, but later to be extended to the branches. Due to the scope of the planned system and internal promotion, the following vacancy exists...

PROGRAMMER/ANALYST

Significant experience (ideally on Datapoint) is required together with a very positive attitude to systems development. Responsibilities will include both programming and analysis work. Age around 22-28. Salary circa £8,000 plus BUPA and other benefits.

Applications stating personal details and references to:-

Mrs. S. Greenway, Personnel Department
Air Wingate Limited
Wingate House, High Street
Ascot, Berks.
Tel. Ascot 23464

THE INSTITUTE OF OCEANOGRAPHIC SCIENCES has a vacancy for a DATA SCIENTIST/ PROGRAMMER

in its
MARINE INFORMATION AND ADVISORY SERVICE

MIAS is the UK national oceanographic data centre and has a responsibility to acquire information and high quality data and to make them available in the most useful format to industry, research workers and government departments. It supports a computerised data bank and actively participates in international oceanographic data exchange.

There is a vacancy in the small team of oceanographers and programmers who develop and operate the bank, on the Honeywell Level 68 computer at Bidston. The work is varied and includes both data/information processing and the development of software systems based on modern computing techniques.

Qualifications
A degree or equivalent in an appropriate subject. Candidate for Higher Scientific Officer should have at least two years' post graduate experience for those with an honours degree or five years' experience for those with HNC/HND.

Salary and Conditions of Service

The salary will be within the following scale:
Scientific Officer £3681-£5488 p.a.
20 days paid annual leave
Higher Scientific Officer £5097-£5737 p.a.
22 days paid annual leave.

Starting pay according to age, qualifications and experience. There is a non-contributory pension scheme.

The Natural Environment Research Council is not a Government Department but conditions of service are similar to those of the Civil Service.

Further details and application forms from:

Mrs J. Phillips
Institute of Oceanographic Sciences
Bidston Observatory
Birkenhead L43 7RA
(Tel: 061-583 8833)

Closing date for completed application forms: 7 February, 1980

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Glasgow Field Service Mils. Comms. £8,000 + O/T + Car

London Field Service Mils. £8,500 + O/T + Car

Hull Field Service Mils./Mainframes £8,100 + O/T + Car

Manchester Field Service Photocopying £8,000 + O/T + Car

Barks. International H/W Support £7,000 + Car

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Candidates of appointment include a three day week's holiday plus one week at both Christmas and Easter including the Bank Holidays, two shift working (8.15 p.m. and 5.45 p.m.) and salary up to £5,423 p.a. inclusive. Interviews by arrangement with Secretary, Computer Centre, Chelsea College, Fulham Road, Chelsea, S.W.6. Tel: 01-738 1244.

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CII-HB set to oust ICL at Space Agency

ICL LOOKS likely to lose out to CII-HB on contract from the European Space Agency to replace two ICL System 4/72s. Software house Marcol of London is set to win a substantial consolation prize for the UK computer industry in the shape of a £250,000 conversion contract.

One System 4 is a general data processing machine at ESA's Space Research and Technology Centre in Noordwijk, Holland. The other is at Darmstadt, West Germany, where it runs a batch processing machine making satellite data collected by Siemens 330 microcomputers and a CII 10 070, a machine based on the Xerox Sigma 7.

ICL, bid large 2000s (above 2500) for the contracts, and told Computer Weekly that it had not been notified it had lost.

"However," said a spokesman, "we would not be too surprised to lose this one because ICL has ever 70% of ESA's mainframe business and the agency is likely to want to spread it more evenly between us, CII-HB and Siemens." Problems with the 280s at Darmstadt, although now resolved, will not have helped ICL's case.

CII-HB would not comment.

on its bid, but it could be Level 66/DPS/86, designed in the US, but built in Scotland and France. Marcol director John Harris agreed that ESA was in final negotiations on the conversion contract.

"We tendered for the contract without knowing the target machine," he told Computer Weekly.

Salaries to: £10,000 (UK) £18,000 (Europe)

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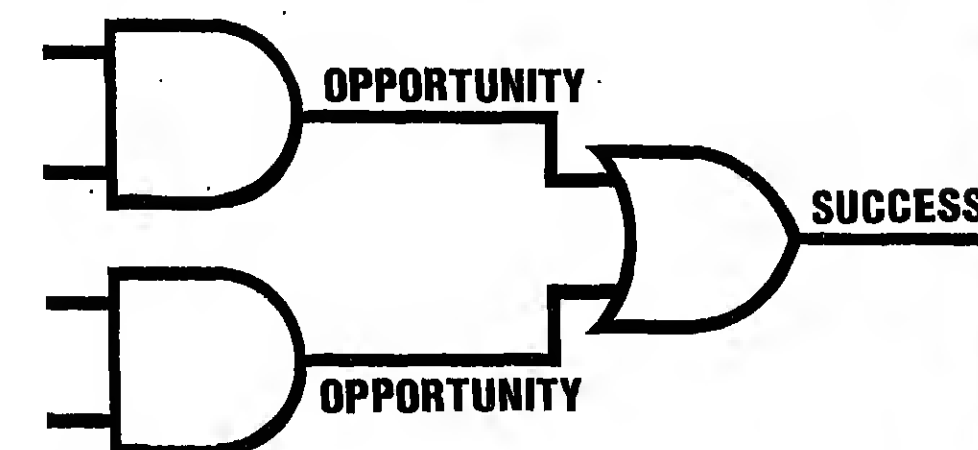
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Further details of the appointment are available from the Recruitment Officer, University of East Anglia, Norwich NR4 7TJ (0693 59181 ext. 2128) with whom applications should be lodged not later than 9th February 1980.

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Tooting S.W.17

£5486-£7042

The South West Thames Regional Health Authority wish to appoint an additional Data Control Shift Supervisor to be based at the Regional Computer Centre, Springfield Hospital, Tooting, London, SW17.

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For further details, phone Sylvie Lyons or Les King on 01-839 3351 up to 8.00 p.m. each evening, or write, with comprehensive career details and telephone number, to: Modern Computer Services Limited, FREEPOST, London, WC2N 6BR.

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You will need to have extensive main-frame product marketing experience. IBM 370/4300 knowledge will be a distinct advantage. We offer a five-figure salary negotiable according to experience. Location South East. Ref. FY.1533/A.

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MAIDENHEAD	Weds, 30 January Noon - 8 p.m.	Eurocrest Hotel, Shoppenhongers Road
BIRMINGHAM	Mon, 28 January Noon - 8 p.m.	Holiday Inn, Holiday Street
GLASGOW	Mon, 28 January Noon - 8 p.m.	Bellahouston Hotel, 517 Pateley Road West
NEWCASTLE	Tues, 29 January Noon - 8 p.m.	Royal Turks Head, Grey Street
LEEDS	Weds, 30 January Noon - 8 p.m.	Queens Hotel, City Square
BRISTOL	Thurs, 31 January Noon - 8 p.m.	Holiday Inn, Lower Castle Street
MANCHESTER	Thurs, 31 January Noon - 8 p.m.	Grand Hotel, Aytoun Street

If you can't make it on any of these dates, write or telephone Mike D'Archi, Manpower Appointments Department, Littlewoods JM Centre, Old Hall Street, Liverpool L1 1 1JL. Telephone 051-236 8518 (24-hour Answering Service).

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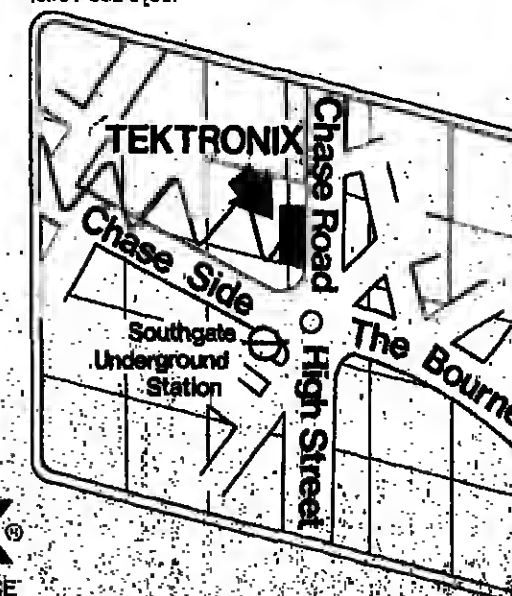
The Programmer we're looking for should have at least a year's experience and the Programmer/Analyst a minimum of two years with a desire to further develop his/her systems experience. For both positions a commercial background is necessary and a knowledge of COBOL would also be an advantage.

If you are interested in finding out more come along to our informal interviews on Tuesday. Our Systems Manager will show you our operation and talk to you about our work, and our personnel people will fill you in on salaries and benefits.

If you can't make it just telephone or write to Michael Gunn-Smith, Personnel & Training Co-ordinator, Tektronix UK Ltd, 313 Chase Road, Southgate, N14 6JJ. Tel: 01-882 6100.

Come and see for yourself on Tuesday 29th January between 5pm & 8pm

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Box number replies should be addressed to:

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To lead one of our operating/data control teams on a two-shift system. You should have extensive operating and/or data control experience, and the ability to supervise and motivate staff. Bexley has an expanding progressive installation in which you would make a positive contribution in the control of day-to-day computer operations and teleprocessing facilities. A major expansion of hardware is planned. Currently in use is a megabyte IBM 370/138 using DOS/VS, POWER/VS with an extensive CICS T.P. network and Data Entry by Rediffon R300.

For details/forms contact Allen Chambers on 01-303 7777 Ext. 782 or at Data Processing Department, 8 Brampton Road, Bexleyheath, Kent, DA7 2EZ. Closing date: 11 February, 1980.

Bexley

Lead our new Warehousing Project

Competitive salaries + car
Berks

Could this be your first full project responsibility?
Our Client - indisputable market leaders - are a rapidly growing manufacturing and distribution concern with a turnover approaching £70 million. A new central on-line warehousing project awaits the right people to set the wheels in motion.

Analyst - This position carries a company car
Your background should include both formal analysis and programming within stock control/distribution/invoicing applications.

Programmer
Essentially with RPG II.

Reporting directly to the Systems Manager you will carry out site investigations to produce an effective user orientated business system. Thereafter yours will be a key liaison, development and support role.

This is a rare opportunity to gain early recognition for a major project at an early stage in your career. Rapid growth of the small team should provide excellent career progression.

Both positions attract relocation expenses.
In the first instance contact David Scarlett on 01-935 0671 or (evenings and weekends) 01-540 3549.



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Birmingham 021-236 3781 35-37 Great Charles Street, Queensway, Birmingham B3 3JY
Manchester 061-833 0427 Blackfriars House, The Parsonage, Manchester M3 2JA

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Open Evening Greenford and Slough

CMG's expansion continues and with it our need for experienced computer professionals looking to further their career with one of the most progressive companies around.

We'd be delighted to meet you at one of the addresses on the right. There you'll have the opportunity to meet some of our staff and managers and discuss the career development opportunities that we can offer. *We require:-*

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To implement and process the applications of those clients wishing to use our bureau services. These applications increasingly involve the use of terminal equipment in the clients' office.

Sales Executives

To sell our comprehensive range of business systems to our prospective bureau clients.

Secretaries

To provide full secretarial support to a team of specialists.

Programmers/Analysts/Consultants

To undertake a variety of consultancy and development projects; mini and main frame, for our bureau and for clients' in-house installations.

If you can't make it, please telephone or write quoting ref. M6; to:

Norma Cozens at Middlesex Office,
01-578 4563.

Just choose the venue nearest to you.

Wednesday 30th January

Between 17.00 and 20.00 hours
CMG (Middlesex) Ltd, Westway House,
320 Ruislip Road East, Greenford, Middx.

Thursday 31st January

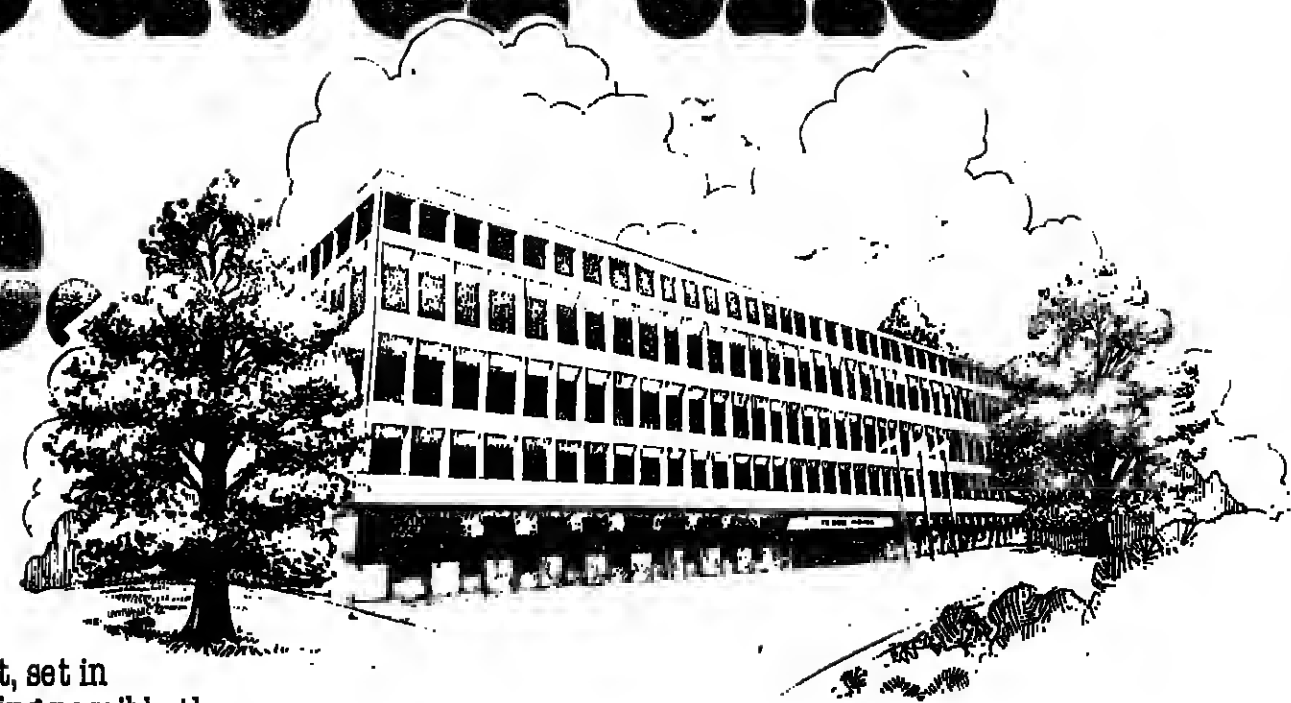
Between 17.00 and 20.00 hours.
Holiday Inn, (M4, junction 5)
Commonwealth Suite, Ditton Road,
Langley, Slough, Berks.



Computer Solutions
for Business



Systems Analysts & Programmers To be in the centre of things, get out of the centre.



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Based on a brand new IBM 3033, the Tesco Computer Centre will have to cope with further spectacular growth in the 80's following our dynamic expansion in the late seventies.

To give you some idea of the scale of our operations, we regularly run over 1000 programs. But even that is less significant than the on-going development work that embraces some of the most sophisticated computerised retail systems applications anywhere in the world.

So the challenge is most certainly there. And, so is the money. Because following a recent review, Analysts are now earning from £7,000-£10,500 per annum, and Programmers and Consultant Programmers from £6,000-£10,000 per annum.

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Tesco is a generous employer in other ways too. You need to move into the Cheshunt area? Then Tesco will pay your relocation expenses and even assist in house-hunting.

A pleasant country location... the chance to work on new hardware... good pay... outstanding working environment... excellent benefits - just add up the advantages of joining Tesco for yourself. And make 1980 the year you move into the big time. Contact Sue Horner, Senior Personnel Officer, Tesco Stores Ltd., Delamare Road, Cheshunt, Herts. EN8 9SL. Telephone Waltham Cross 32222.

POSTAL APPLICATION

Name	
Address	
Tel. No.	01/24/80

TESCO

Programmers

LIVERPOOL

(DR/422) 18+ months IBM COBOL/ASSEMBLER to £6000
(DR/423) 18+ months ICL COBOL to £6000
(DR/424) 2+ years IBM COBOL/PL-1 c £6000
(DR/425) All Levels ICL COBOL to £6000
(DR/426) 3+ years ICL COBOL Supervising to £7000
(DR/427) 4+ years ICL COBOL/RPG2 to £7500

MANCHESTER

(DR/428) 12+ months ICL COBOL to £5000
(DR/429) 12+ months IBM COBOL to £6000
(DR/430) 18+ months PDP using BASIC F. Neg.
(DR/431) 3+ years IBM COBOL/ASSEMBLER to £7000

LEEDS/BRADFORD

(DR/432) 2+ years COBOL c £6000
(DR/433) 2+ years Honeywell Experience to £5500
(DR/434) 2+ years ICL 1900 COBOL to £6500
(DR/435) All Levels PDP BASIC Experience to £6000
(DR/436) All Levels ICL 1903 (GEORGE III) to £6500
(DR/437) All Levels ICL 2900 (VMEB) to £6500
(DR/438) 2+ years NCR COBOL F. Neg.

SHEFFIELD

(DR/439) 2+ years ICL COBOL to £6000
(DR/440) 2+ years IBM COBOL/ASSEMBLER to £6250
(DR/441) 2+ years ICL 1900/2900 COBOL to £7000

TYNE & WEAR

(DR/442) 2+ years COBOL experience c £5500
(DR/443) 3+ years CICS experience to £8000
(DR/444) 12+ months IBM COBOL experience F. Neg.
(DR/445) 3+ years PL/I or IBM COBOL to £6500

Analysts

LIVERPOOL

(DR/446) 2+ years ICL Business Experience to £8200
(DR/447) 2+ years IBM Commercial Systems to £6300
(DR/448) 3+ years IBM Environment to £6500
(DR/449) 2+ years (plus Programming Background) to £7000
(DR/450) 2+ years Business Experience F. Neg.
(DR/451) 18+ months Systems/Applications F. Neg.

MANCHESTER

(DR/452) 2+ years IBM Environment to £6000
(DR/453) 2+ years General Business Experience c £6500
(DR/454) 2+ years Retail Environment c £7000
(DR/455) 3+ years General Systems Experience to £7250

LEEDS/BRADFORD

(DR/456) 4+ years (including programming background) c £7000
(DR/457) 2+ years IBM Business Environment c £6000
(DR/458) 2+ years Retail Environment to £6500
(DR/459) 18+ months Commercial Business Experience to £6750

SHEFFIELD

(DR/460) 4+ years ICL Business Background c £6000
(DR/461) 18+ months General Commercial Experience to £6000
(DR/462) 2+ years Business Environment F. Neg.

TYNE & WEAR

(DR/463) 18+ months (plus programming background) to £6500
(DR/464) 24+ months General Business Experience c £7250
(DR/465) Senior Systems Analyst with Database to £7500

BIRMINGHAM

(DR/466) 18+ months commercial IBM experience to £6200
(DR/467) 12+ months ICL commercial/business experience c £6500

Interested? Send coupon FREEPOST or phone quoting relevant reference

NAME _____ AGE _____
ADDRESS _____
PHONE HOME _____
BUSINESS (will be used discreetly) _____
YRS ANALYSIS _____ YRS PROGRAMMING _____
MACHINES USED _____
LANGUAGES USED _____
CW/24H SALARY _____
SALARY REQUIRED _____
JOB SOUGHT _____
REF No _____
Recruitment Agency

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U.S.A.

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CBM INC is a 10-year-old publicly held professional services firm with offices in Atlanta - New York - Chicago - Los Angeles - Minneapolis. We are seeking individuals with demonstrated academic excellence and strong technical background to join our dynamic growth oriented company. Immediate openings exist for:

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Will be involved in feasibility studies, systems analysis, systems design, implementation and project management. Five or more years of experience in the design and implementation of medium-to-large scale computer applications required. Knowledge of database, teleprocessing and distributed processing a plus.

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Will be involved in detail design and programming of a variety of applications. Requires 2-3 years of analysis and programming experience in an OS/MVS COBOL-TSO environment. Experience in IMS DB/DO, CICS, PL/I, BAL and mini computers helpful.

A career with CBM offers exceptional potential for financial and personal growth. If you have excellent oral and written communication skills, and would like to enjoy the variety and challenge of the consulting profession, call Cecilia O'Toole on 021-643 5119 to discuss these exciting possibilities with one of our UK representatives.

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EMS alone can give you access to all the vacancies throughout the UK with a unique computerised job marketing system. We are inundated with requirements daily, an example of the opportunities available to you via an EMS application form. If you can sell, we've over 50 jobs for every candidate. It's 10 minutes of your time worth a total market appraisal! EMS will instantly give you access not only to all the advertised vacancies, but the hundreds which are not. EMS get results. Phone us today, and we'll prove it to you.

0782 623685 John Wood

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Minis
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Start 1980

The way you mean to go on!
WINNING!
Thanks to EMS job opportunities
Fill in the endorsed application form

SYSTEMS ANALYST — NORTH WEST

£7,000 to £10,000
We require a further large number of experienced Systems Analysts to work with our consulting teams developing large commercially oriented systems for major UK trading groups. A minimum 2 years' practical systems experience is sought, coupled by a previous duration of programming involvement. We envisage all candidates having worked on successful implementations of at least 2 major systems during their career. Equally, you should have the experience to communicate effectively with a wide variety of users and to competently design appropriate application facilities to user specifications, presenting details for approval at all stages. Most accurate specifications will be required down to programmer level, clearly giving the optimum information for easy completion.
For experience of Accounting, Distribution, Payroll and general commercial systems is required. Candidates should preferably be educated to a minimum 'A' level standard, whilst preference will be for an HNC/D or degree.
Sound career opportunities exist for consultants wishing to transfer to our Turnkey Division installing mini computer based systems, or to continue with both our national and international consulting division activities.
For early UK interviews please phone urgently today for an application form:
Tony Kite — 021-454 7906
or John Wood — 0782 623685

PACKAGE SYSTEMS DESIGNERS — BIRMINGHAM

Our recently opened Data Centre, concentrating primarily on Turnkey Systems Development, based on Honeywell Level 6 and 9.5 hardware, has ongoing requirements for senior experienced Systems Designers with relevant mini experience, capable of controlling and co-ordinating team development on package design. We particularly seek Systems Designers who have previously worked on the design and development of Packages such as Ledgers, Payroll, Sales Order Processing, Stock and Production Systems. All packages will be designed primarily for on-line use to optimise M.L.S. prospects.
Please send evidence of past achievements in this area for each candidate, as large budgets are being committed to achieve a modularised solution, and avoid unnecessary repetitive development. Any experience of structured programming would be especially welcome although not necessary. Past experience of working to tight deadlines and mobilising a team to meet a deadline to achieve targets, and so on, will be important. A sound knowledge of mini restrictions and operating systems capabilities will be important. Past experience of working on mini using Cobol will be essential.
We have a modern, well-equipped Data Centre with a wide range of facilities, committed to ensuring futuristic software development for a growing and diverse range of manufacturing and service systems. The Company operates throughout the entire UK and plans to expand the Data Centre overseas by 1981. We offer a unique development opportunity for a top systems design team, capable of making a major contribution towards both current and future development plans. Significant scope for career progression for candidates of sufficient calibre, able to make an early and positive contribution towards group development.
Reply to Ian Gapper — 021-454 7906

ANALYSTS AND SENIOR ANALYSTS — COMMERCIAL INSTALLATION CHESHIRE

UP TO £8,000
We require 4 individuals with a commercial installation experience to work on large on-line financially based application projects into the 1980's. Any relevant experience within the field of finance groups, insurance companies or banking will be particularly attractive. Candidates should be capable of producing a high level of accuracy and rapidly identifying and solving any problems which arise. Significant scope for career progression for candidates of sufficient calibre, able to make an early and positive contribution towards group development.
Reply to Ian Gapper — 021-454 7906

CONTRACT VACANCIES £200 to £300 p.w.

London & Home Counties — Analysts and Programmers.
PL/1 Programmers, Systems Analyst — London and Saudi Arabia.
IBM System 3 RPG II Programmers — City.
IBM and Database experience — various.
IBM TSO — Harle.
ICL VMEB/K — Surrey.
PDP 11, Assembler and Data Communications — City.
Midlands — Analysts and Programmers.
Honeywell Series 80 GCOS — Systems Programmers.
Honeywell L64-IDS II — Birmingham.
ICL 2803/4, New Range — North Staffs.
Mini Logic Designer — North Staffs.
IBM Analysts and Programmers — South Birmingham (6 months).
Northern
IBM CICS Analysts — Cheshire and Lancs (1-3 years).
IBM Stock and Production Analysis — Cheshire (1-2 years).
Systems Analysts and Designers — Liverpool (1 year).
IBM Cobol Programmers — Manchester/Cheshire (1 year).
Overseas
Saudi Arabia — PL/1 Programmers.
Saudi Arabia — IMS-PL/1 Analysts.
Kuwait — CICS Systems Designers and Programmers.
America — IBM and Honeywell — various opportunities 1980.

EMS

Phone: 021-454 7906 or
0782-623685, or
write to Recruitment Division
E.M.S. Data Centre
Tricorn House, Hagley Road
Fiveways
Edgbaston
Birmingham

0782 623685 John Wood

SYSTEMS ANALYST UP TO £8,000

NORTH LONDON

Experienced analysts are required by an electronics company to assist with a series of development projects. Ideally all candidates should have sound background in manufacturing with good knowledge of financial applications, marketing and sales. Our client requires analysts capable of making an early contribution towards the installation user requirements and being capable of working with a minimum of supervision.

Consultant — Carol Proudman — 0782 623685

SYSTEMS ANALYST UP TO £8,000

PORTSMOUTH

A company employed in the manufacturing sector seek additional analysts to work in manufacturing environment on a variety of development projects. Tasks include customising and implementing packaged manufacturing systems, training of users, writing and implementing departmental procedures, preparing and maintaining systems documentation, project planning and control, supervision and programming of any client associated programming requirements, design specification, testing and implementation of all user systems assigned to your personal control. A variety of packages are currently being used including OBOMP, RPS, SAFES, MAAPICS, OMAC and MCS-6. Candidates should preferably be educated to HNC or degree level. Relocation assistance will be provided where appropriate.

Consultant — Carol Proudman — 0782 623685

MINI ANALYST/PROGRAMMER UP TO £7,000

SHEFFIELD

Candidates for these positions should have experience of PDP-11/44, PDP-11/34 or Syntex 3,000/5,000 configurations. Experience should cover a general commercial and financial applications of manufacturing organisations. Although the position will be based in Sheffield successful candidates must be prepared to spend considerable amounts of time on-site at remote locations installing systems on behalf of the parent organisation. He/she must therefore be a driver and show willingness to operate in a demanding environment. Staff report direct to the Mini Computer Projects Manager and candidates will initially take responsibility for systems implementation and all facets of software development and support down to maintaining existing installations in and throughout Leicestershire. Expansion of mini usage within the Company has already begun and it is envisaged this will lead to involvement in other hardware and software systems in the near future. It is likely that initially these will be based upon the new ICL system 10/120 series. Candidates must be capable of working closely with all levels of staff up to Board level. It is unlikely that anyone with less than 4 years' experience in systems and programming will have the necessary background. Sound career opportunities exist for successful candidates.

Consultant — Carol Proudman — 0782 623685

SALESMEN UP TO £12,000

MANCHESTER AND LONDON

A controlled systems organisation is rapidly developing their UK market and urgently seek additional experienced salesmen to market word processing, terminals and peripheral equipment as specified within the company product range. The group also have a series of accounting/business systems machines to provide a lucrative extra product range where the opportunity exists. Five new salesmen are required immediately and attractive commissions schemes exist for top, productive sales consultants. Please apply urgently for an application form.

Consultant — Carol Proudman — 0782 623685

SYSTEMS ANALYST/SENIOR SYSTEMS ANALYST ON-LINE DEVELOPMENT

A manufacturing group in Croydon are seeking additional experienced analyst to assist with development of wide range of OP techniques used in many different functions throughout the factory to reduce manufacturing cost. Already communications orientated production information and control system is being piloted for UK group use at this particular company. Successful applicants should have at least three years' experience of accounting, end/or manufacturing systems. Great would be advantageous but experience in a manufacturing environment is more important. The company are prepared to pay up to £8,500 for experienced candidates.

Consultant — Carol Proudman — 0782 623685

SENIOR ANALYST/PROGRAMMER UP TO £8,400

PAYROLL AND PENSION SYSTEMS — CROYDON, SURREY

The payroll and pensions group provide a service to both central and local salaries, pensions and personnel departments. This service entails the provision, implementation and maintenance of systems used in handling data on salaries and pensions pertinent to staff employed within a large UK group. Currently there are up to 40,000 personnel records of data held within the files of the various systems in use. Senior Analyst/Programmer reports to the Payroll and Pensions Group Manager and is required to handle the day-to-day running of the department including being responsible for the work of two more junior employees. He/she will provide general and technical guidance on programming techniques and methods. The Senior Analyst/Programmer must have a good knowledge of Cobol and sufficient Assembler programming experience to maintain current Assembler programs, plus ability to lead a small team of people whilst handling work of a very confidential nature. An attractive salary will be negotiated for candidates of suitable experience.

Consultant — Carol Proudman — 0782 623685

DEC SYSTEMS PROGRAMMER UP TO £8,000

SURREY

The scientific computer centre of a large industrial group provides a computing service for engineers and designers in areas such as computer aided design and modelling. The scientific centre has a DEC 2050 which is coupled to an extensive communications network including IBM mainframes. The person appointed will ideally be a graduate in either science or engineering in addition to having a minimum 2-3 years' practical Assembler programming experience using DEC-10 or DEC-20 equipment. Attractive salaries of up to £8,000 will be paid for satisfactory candidates.

Consultant — Carol Proudman — 0782 623685

TOP TURNKEY SYSTEMS SALESMEN

NUMEROUS UK OPPORTUNITIES

Attractive basic, car and up to £15,000 first year package earnings alone. The EMS Data Centre are rapidly expanding throughout the UK marketing a variety of systems to manufacturers, stockists and distributors. We require experienced Turnkey salesmen capable of marketing a minimum 8 systems a year using leads, seminars and canvassing techniques. We are seeking candidates of a minimum 27 years of age who have already obtained at least two years in business systems marketing and have a successful record to demonstrate. We have an excellent range of hardware products and competitive sound development software systems. Scope genuine exists for top productive salesmen to earn very high commission levels where no cut-off system exists, nor will Company policy change during the foreseeable future to curtail optimising earnings based upon sales achievement. EMS will be looking for the highest level of sales ability and skilful systems communicators capable of presenting an effective and considered case at Board level. We have a modern, attractive Data Centre based in the centre of Birmingham from which we control our UK wide marketing activities. The Centre is fully equipped with a variety of hardware systems including Honeywell Level 5, Data General and ICL 2904/7502. A top-class pre-sales support unit exists to enable rapid developments of feasibility studies to tendering purposes and to free up unnecessary involvement of experienced salesmen within this area whilst such studies are carried out on your behalf. We offer a unique opportunity for top, experienced salesmen to concentrate on marketing and therefore maximise sales opportunities by using a different approach to traditional sales penetration procedures. EMS can genuinely offer you an unparalleled opportunity if you have the professional skills and ability to produce revenue commensurate with our requirements.

Consultant — Tony Kline — 021-484 7906

SYSTEMS DESIGNER ICL 2904 BASED SYSTEMS

ATTRACTIVE NEGOTIABLE SALARY

The EMS/ICL Systems Division based in our Newcastle-under-Lyme Centre have an urgent requirement for an experienced Systems Designer to work in a small team of analysts and programmers to take responsibility for feasibility studies, systems analysis and design for a variety of projects and regular communication with the client through to systems testing, implementation and user training. This particular Systems Division has only been established for the last 8 months and will be doubling its turnover each year during the next few years therefore offering an excellent career opportunity for growing with the unit from its original foundation. We are already considerably ahead of projected targets and envisage a successful development during the 1980s. Work varies from many original custom-built projects through eventually to converting a variety of established systems from our Mini and Turnkey development unit based in Birmingham for use on ICL 2903/4 and coming new range systems. An attractive salary will be negotiated according to the level of experience available with each candidate.

Consultant — Don Walklate — 0782 623685

TOP SYSTEMS ANALYSTS AND DESIGNERS

NUMEROUS APPOINTMENTS THROUGHOUT UK

The EMS Consulting Division have many projects involving design and development of systems at client sites throughout the UK and are urgently seeking up to 50 extra experienced analysts throughout 1980 to join our Consulting Division. Projects vary widely and incorporate manufacturers, commercial organisations, Government bodies, chain stores and mail order groups, distributors, stockists and banks. Early opportunities exist for professional analysts to attain a position of site Project Leader or even site Manager on the larger contracts should you wish to develop a career within this particular area of the Company unit. Opportunities also exist to move progressively through the Consulting Division into Turnkey Systems or other trading areas of the Company. Many of the staff joining EMS only 3 or 4 years ago are now operating in a senior managerial control role and have considerably enhanced both their earnings and prospects since diversifying into an economically expanding group such as our own. A wide range of career development opportunities exist for satisfactory candidates. Please apply urgently for further details.

Consultant — John Wood — 0782 623685

SYSTEMS DESIGNERS PROGRAMMERS AND PROJECT LEADERS

KUWAIT

Our client in Kuwait, Kuwait's leading consultancy the Jaser Consult Group, have on-going requirements for motivated and experienced analysts and programmers to support a wide range of established users throughout the Gulf. Their clients include banks, chemical corporations, State Ministries, oil companies, or distribution and maintenance groups through to a variety of supermarkets and trading groups. A range of attractive career opportunities exist within this organisation which has been a major user of EMS services during the last 5 years. Preference is positively candidates educated to a minimum 'A' level with a maximum only 2 children. Accommodation throughout the Gulf for more children is a problem and too expensive to consider on a contract basis. Salaries are exclusive of accommodation which is provided free of charge by Inter Consult and therefore offers an excellent opportunity of saving large amounts of money during 2-5-year contract. Interviews are held each month at various locations. Please apply urgently for an application form and a discussion regarding the next series of interview locations.

Consultant — John Wood — 0782 623685

MINI SYSTEMS DESIGNERS

LONDON & HOME COUNTIES

A large range of Mini users throughout the southern region has urgent requirements for experienced staff to undertake a wide and diverse series of development projects during early 1980. Clients include original manufacturers engaged upon specific product development to market throughout their own client base. Turnkey systems groups developing application systems on behalf of clients, major trading organisations developing their own in-house systems on behalf of a significant series of users through software organisations developing products for onward promotion throughout the Mini user base. Excellent career opportunities exist with a guaranteed wide range of job interest. Salaries will be very attractive for experienced staff and merit a few minutes involved in completing the enclosed EMS application form. Each candidate applying will be assured of a significant range of interview opportunities.

Consultant — John Wood — 0782 623685



Phone: 021-454 7906 or
0782 623685 or
write to Recruitment Division
E.M.S. Data Centre
Tricorn House, Hagley Road
Fiveways
Edgbaston
Birmingham



EMS CONSULTANTS LTD.
61 LOWER STREET
NEWCASTLE-UNDER-LYME
STAFFORDSHIRE, ST5 2RS
Telex: 38636

Management Services & Computing Division
Telephone: 0782 623685
Employment Agency & Employment
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SURNAME Other Names		Mr/Ms	
Address		Telephone	
		Home	
		Bus.	
Post Code	Age	Date of Birth	Place of Birth
			Nationality
			Height
			Weight
Married	Children	Car Owner	Driver
		Nature of any Serious Illness	
Position Required		Required Salary Range	
Present Position		Salary	
WHERE DO YOU WISH TO WORK			
Within U.K.	Yes/No	Acceptable Areas	Abroad
Will you move	Yes/No		Europe
			Middle East
			Yes/No
NUMBER OF YEARS EXPERIENCE			
Operating	Programming	Systems Design	Systems Analysis
			Management
			Total
Available for Interviews			
Available for Employment			
EDUCATION: School/College/University		ACADEMIC ACHIEVEMENTS:	
LANGUAGES: TICK AS APPROPRIATE			
French		Spanish	
German		Arabic	
Dutch		Russian	
Italian		Others:	
BUSINESS COURSES:			

TYPE OF INSTALLATION (NUMBER OF YEARS)			
Commercial	Banking	Insurance	Scientific
Manufacturing	Education	Engineering	
Software or Packages			
On-Line	Real Time	Time Sharing	
R.J.E.	Tele Processing	Data Base	
EMPLOYMENT HISTORY			
1. PRESENT EMPLOYER COMPANY		EMPLOYED from to	
TOWN			
TITLE			
HARDWARE		LANGUAGES USED	
OPERATING SYSTEM		SOFTWARE/PACKAGES	
2. PREVIOUS EMPLOYER COMPANY		EMPLOYED from to	
TOWN			
TITLE			
HARDWARE		LANGUAGES USED	
OPERATING SYSTEM		SOFTWARE/PACKAGES	
3. PREVIOUS EMPLOYER COMPANY		EMPLOYED from to	
TOWN			
TITLE			
HARDWARE		LANGUAGES USED	
OPERATING SYSTEM		SOFTWARE/PACKAGES	

E.M.S. reserve the right without consent of candidates, to supply a suitable basic document with details of prospective employers or details of a candidate's nomination preference in order to assist early interviews.

Equalities: E.M.S. will not discriminate on grounds of sex, race, religion, or age, or on the basis of marital status, or on the basis of sexual orientation, or on the basis of physical disability, or on the basis of social class, or on the basis of political opinions, or on the basis of trade union membership, or on the basis of any other grounds which are prohibited by the Equalities Act 1975.

Please explain below, in a 10-15 line space, your applications experience.

Please show the number of years experience of the following. Where your experience is not specified please use the blank spaces.

HARDWARE	OPERATING SYSTEM	LANGUAGES	PACKAGES/SOFTWARE
IBM 360/370	OS	COBOL	FILETAG
IBM S/32 etc.	OS	FORTRAN	ORIVER
IBM 3030 Series	MVS	ASSEMBLER	CICS
ICL 2903-2906	MVT/MFT	PLI	IMS
ICL 2960 etc.	GEORGE 1, 2, 3	PLAN	COMP
ICL 1900	OME	RPG2	PERT
UNIVAC	VMEB/VMEK	USERCODE	VSAM
BURROUGHS	EXEC8	AUTOCODE	IDS
MCR	OS 2000	EASYCODER	TOS
HONEYWELL L/66	GCOS	ALGOL	MICROFILMING
HONEYWELL L/6	RSTS	NEAT	IGMS
HONEYWELL other	MOO 200/400/600	CORAL	PROSPER
POP		DLI	TPS
MINIS		NICOL	
MICROS		BASIC	

APPLICATION AREAS YOU HAVE BEEN INVOLVED IN (NUMBER OF YEARS)			
Cost Accounting	General Ledger	Manpower Planning	Personnel
Budgeting	Credit Control	Stock Control	Payroll
Forecasting	Order Processing	Production Control	O.R.
Corporate Planning	Marketing	Petrochemicals	Radar
Sales Ledger	Distribution	Linear Programming	Statistics
Purchase Ledger	Traffic Analysis	Simulation	
APPLICATIONS WORKED ON/EXPERIENCE GAINED			
APPLICATIONS WORKED ON/EXPERIENCE GAINED			
APPLICATIONS WORKED ON/EXPERIENCE GAINED			

Project Manager

Sutton, Surrey c.£9,000

The Crown Agents are seeking a Project Manager to head a team of Analysts and Programmers engaged upon the development of existing projects.

The successful candidate will have a data processing background with a record of successful project management. Knowledge of on-line real time systems using database file structures will be an advantage, but the proven ability to motivate staff and get things done is the prime requirement.

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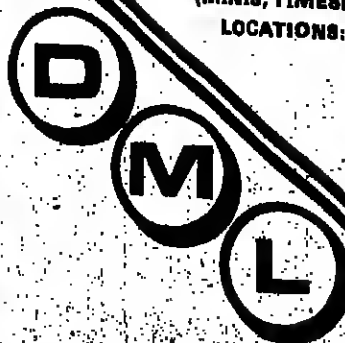
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47 Upper Grosvenor Street,
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Department of
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THE SALES BIT

Telephone can be a tool for disaster

THE telephone is one of the
basic essential devices of
the selling process. It is difficult
to conceive how the
salesman could survive
without it, yet in many
circumstances it is the perfect
tool for self-inflicted
disaster.

The areas where the
telephone can be put to best
use are fairly obvious from
the collection of company
data prior to first contact, to
pursuing overdue accounts.

However, there are some
selling activities which
should completely exclude
the use of the telephone and
one situation where it must
always be used with extreme
sensitivity and common
sense. It is this latter
area that I would like to deal
with first the fixing of
first-time appointments.

The basic rule is simple.
Use the telephone to sell the
appointment, not to sell the
product.

I know there is such a
thing as tele-sales, but that
is relevant to first moving
consumers goods and in
many cases represents
glorified order-taking. You
cannot successfully sell
technically oriented products
that require any kind of
explanation, by
telephone.

What few exceptions
there might be in this thesis
are best ignored.

The second most important
rule is that all relevant
investigating and planning
be completed before
making the telephone call.

The validity of a company
as a sales prospect should be
established before the call is
made by effective use of
trade directories or whatever
means of non-
telephonic qualification are
available.

The correct name of the
person to speak to must
also have been established
before the event, and
preferably the initial
contact made by a letter
defining areas of common
interest and benefit.

Rule three is to have a
"planned presentation"
which consists of an
opening statement followed
by key points which need to
be covered. Brevity is the
key word. Once the client
has agreed to the appointment
the call should be terminated.

It is up to the individual
salesman to use whatever
techniques he believes to be
suited to "closing" the
appointment, but the
"optional close" is usually
the most effective.

There is always a temptation
for the salesman to be
drawn into supplying product
information once the
buyer has agreed to a
meeting. Don't do it! There
is no better way of talking
oneself out of the business.
There is a considerable risk
of the potential buyer
saying "Now that I have a
better appreciation of your
product I'd prefer to leave
out meeting until a later
date" - like never!

Rule four is to prepare a
formal list of all companies
to be approached with
complete basic information
such as correct name of the
best contact, town (Journey
planning, remember?),
telephone number and
dialling-code, product most
likely to create interest,
most likely application area,
and so on.

This not only creates a
useful reference list but also
assists speed and continuity
whenever telephone
numbers are engaged.

Apart from prospecting,
the telephone is a dangerous
and/or useless device
in some key areas of business.
The areas that spring
most readily to mind are:
Sorting out problems, getting
decisions, providing
explanations, delivering
technical detail, establishing
the truth, supplying proof.

I am sure you can think of
other such telephone "no-go"
areas.

TRADER

Accessory guide

A BUREAU guide to details of
accessories for mainframes,
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SBC range

A POCKET guide to the Intel
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DEM computers and expansion
boards is available from Rapid
Recall. The guide provides all
the most significant data and
incorporates a simple system
configuration planner. More
details can be had from Norman
Nicholl, Rapid Recall, 110, 6
Soho Mills, Woburn Industrial
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A FOUR colour brochure from
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ward data security system.
Copies may be obtained from
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A LEAFLET outlining the characteristics of the computer-
aided design software system
Aladdin has been published by
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Interconnection of Nets - was
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